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THE  
NATURAL HISTORY  
OF  
BRITISH INSECTS.

BRITISH INSECTS

# BRITISH INSECTS

NATURAL HISTORY  
OF GREAT BRITAIN  
AND IRELAND  
INSECTS



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THE  
NATURAL HISTORY  
OF  
BRITISH INSECTS;

EXPLAINING THEM  
IN THEIR SEVERAL STATES,  
WITH THE PERIODS OF THEIR TRANSFORMATIONS,  
THEIR FOOD, ŒCONOMY, &c.

TOGETHER WITH THE  
HISTORY OF SUCH MINUTE INSECTS

AS REQUIRE INVESTIGATION BY THE MICROSCOPE.

THE WHOLE ILLUSTRATED BY  
COLOURED FIGURES,  
DESIGNED AND EXECUTED FROM LIVING SPECIMENS.

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BY E. DONOVAN.

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VOL. XIV.

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LONDON:

PRINTED FOR THE AUTHOR,  
And for F. C. and J. RIVINGTON, N<sup>o</sup> 62, ST. PAUL'S CHURCH-YARD.

MDCCCX. 8

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NATURAL HISTORY  
OF  
BRITISH INSECTS;

EXPLAINING THEM  
IN THEIR SEVERAL STAGES,  
WITH THE PERIODS OF THEIR TRANSFORMATIONS,  
THEIR FOOD, OR NUTRIMENT,  
THEIR HABITS, AND THE  
HISTORY OF SUCH MISLE INSECTS  
AS ARE DETRIMENTAL TO THE AGRICULTURE,  
AND THE HISTORY OF SUCH  
AS ARE BENEFICIAL TO THE  
HUMAN RACE.

BY E. DONOVAN

IN TWO VOLUMES.  
VOL. II.

LONDON:

Printed for J. G. and J. Harrison, No. 54, St. Paul's Church-Yard.  
1830.

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THE  
NATURAL HISTORY  
OF  
BRITISH INSECTS.

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PLATE CCCCLXIX.

SPHINX DRURÆI.

DRURY'S HAWK MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ somewhat prism-form, and tapering at each end: tongue generally exerted: feelers two, reflected; wings deflected.

SPECIFIC CHARACTER.

SPHINX DRURÆI. Wings entire: anterior pair grey and testaceous clouded, with distinct fuscous blotch in the middle: anterior wings red, with three denticulate black bands: abdomen red, with black belts.

SPHINX CONVULVULI, *var.* POTATOE HAWK MOTH. *Smith's Inf. Georg. V. 1. p. 32.*

SPHINX CONVULVULI, *varietas.* *Drury, V. 1. pl. 25. fig. 4?*

VOL. XIV,

B

A more

A more beautiful insect than that before us has never been introduced to the attention of our readers, either as an exotic species, or a native of this country; but, with what propriety we have ventured to consider it specifically distinct from the *Sphinx Convolvuli*, to which it is so closely allied, or how far we may be authorized, from the occurrence of a single example in a living state in Britain, to admit it as an inhabitant, we are disposed to submit to the decision of others, after relating the circumstances which induce us to include it in the present work.

In a former volume our subscribers possess a figure and description of another very interesting species of the same tribe, the *Sphinx Carolina*; an insect sufficiently known as a Linnaean species, and as a native of North America, but which was inserted as a British insect on the authority of the late Mr. Drury, who received the individual specimen described in a living state. It will be found, on reference to the memorandum in the hand-writing of Mr. Drury annexed thereto, that the information it conveys relates to two species of the *Sphinx* tribe, the one we then described, and another, which latter is the insect now under consideration. The memorandum states, that these two insects were brought to Mr. Drury alive, one about the year 1776, the other in 1788. Whether the species *Carolina*, or the present, was discovered first, cannot be at this time ascertained: it is only evident that both were taken within the interval of the above-mentioned periods.

The discovery of a solitary specimen of any insect in this country, which is clearly authenticated to be indigenous to extra European climates, is not altogether sufficient in our mind to countenance its introduction into the British Fauna; yet there are circumstances, under which it would be improper to omit the mention of such extraordinary acquisitions; and this idea applies, in an immediate degree, to the discovery of the present very elegant species in a state of nature in Britain. We are nevertheless inclined to regard it as an accidental occurrence only, and conceive it incumbent to observe, as in the instance of *Sphinx Carolina*, that there appears to us every reason for



for believing it must have been originally imported in the egg, or larva state, among some articles of American produce, though from this introduction it is not to be denied that the species may have become naturalized in this country. There does not appear any evidence so positive as to demonstrate the fact, yet we suspect this insect, as a supposed variety of *Sphinx Convolvuli*, must have been long known among collectors as a native of Britain, under the denomination of the “Red Underwing *Convolvuli*,” and, if we mistake not, under that of the “Yorkshire *Convolvuli*” also. We believe these names have been applied to the present insect.

The similarity that prevails in the general appearance of this insect, and the *Sphinx Convolvuli*, deserves particularly to be considered, in order to determine whether the latter be really a distinct species, or only a variety.

In the first place, it is to be observed, that the descriptions which Linnæus, and other early writers, afford us, are taken from specimens of the *Sphinx Convolvuli* met with exclusively in Europe: those writers did not consider the species as extra European, much less as a native of the transatlantic regions, and their descriptions will be found to accord with that particular kind of *Sphinx* which is known in England by the name of *Convolvuli*, or Bind-Weed Hawk Moth.

Some time after the work of Linnæus appeared, our countryman Drury published the first volume of his exotic insects, the twenty-fourth plate of which includes the figure of a *Sphinx*, whose external aspect seemed, in his opinion, to correspond with the European *Convolvuli*: the hues and marking of the upper wings were somewhat similar, but in this the colour of the lower wings, which in the European insect are greyish white, were red, a difference which the author of that work imagined might be produced from the effect of climate, the specimen being from St. Christopher’s; and under this persuasion, after speaking of it as an insect which he could not find described, he calls it in his index *Sphinx Convolvuli varietas*.

This induced later entomologists, and among the rest Fabricius, to believe there must be two varieties of the *Sphinx Convolvuli*, namely, the European kind with grey posterior wings, and the American with red posterior wings; for this, though not directly stated, must be implied, as he refers to the plate of Drury's work, before noticed among his synonyms of the species *Convolvuli* \*. This latter insect was also, on some popular report, considered as a native of Britain, an idea we suspect to have originated from its being understood that an insect of the *Sphinx* family, corresponding with *S. Convolvuli*, but having red instead of grey posterior wings, had been once taken in England, and was preserved in the English cabinet of Mr. Drury. Such we believe to be the origin of the report, though we cannot absolutely trace it to this source. Should this conjecture be well founded, we may add that the insect, figured and described by Mr. Drury in his work, must have been considered different from the present species by that author: it is very evident he did not admit them to be the same; but whether the attention he had bestowed upon them was sufficient to enable him to determine this point with accuracy, we shall not pretend to decide. Since the dispersion of his collection of exotic sphinges, it is perhaps impossible to discover the genuine insect intended by his *Convolvuli var.* His figure and description is not altogether so definitive as we could wish; and in the general information subjoined thereto, he merely says, "I received it from St. Christopher's. I cannot find it any where described;" and after this, in the index, he names it "*Convolvuli varietas. Linn. p. 798. n. 6.*" In his manuscript notes, at this time in our possession, there is a further memorandum on the same subject, and which, though not material, may be repeated. It occurs in the following words: "*Convolvuli var. St. Kitt's. Mr. Kearton, 1765.*" *Vid. Illust. Vol. I. pl. 25. fig. 4.* In the manuscript note annexed to our present insect, Mr. Drury expresses a different opinion of the latter; for this, he observes, "is not the same as *S. Convolvuli*;"

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\* The reference in *Species Insectorum* is to plate 25. fig. 1. which latter is an error; it is intended for figure 4. The same error has been followed by Gmelin in his *Linna. Syst. Nat.* but this is corrected in the more recent works of Fabricius.

from which it is to be inferred, that he considered the first of these insects as only a variety of *S. Convolvuli*, and the latter as a distinct species. We shall not, however, adduce this as a positive testimony that they were in reality different: indeed we suspect the contrary; but on a subject so ambiguous, we conceive it candid to state the ideas of Mr. Drury, as well as the opinion we ourselves entertain.

Since the production of the work to which we last adverted, Mr. Abbot, an assiduous entomological collector in the province of New Georgia, North America, furnished several of the English cabinets with specimens of the insects of that particular country where he resided, and among the rest with some few examples of the individual kind of *Sphinx* to which our attention is now directed. A series of drawings by Mr. Abbot, explanatory of the various changes of a select number of the insects of that part of the globe, were likewise transmitted to England about the same period, one of which exhibited the transformation of this very species. These drawings afterwards passing into the hands of the London booksellers, were engraven and published under the title of *Abbot's Insects of Georgia*, with observations by Dr. Smith.

Thus it appears, that of the two figures considered as representations of our insect, one only is certain, and that is the figure included in the last mentioned publication. The latter we are assured of, not only from an attentive inspection of the original drawings\*, but also from the individual example delineated in that work, and which differs in no respect from the insect now before us. This we mention in order to shew that our comparisons are deduced with a sufficient degree of certainty.

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\* These original drawings were, in the first instance, consigned from Georgia by Mr. Abbot to Mr. G. Humphreys, in London, and remained in the possession of the latter some time. They were executed by Mr. Abbot on coarse wire-marked paper, and were, more or less, discoloured and stained with sea-water, an injury sustained in the passage between America and England. With the exception of this circumstance, we have no reason to distrust their general accuracy, and that exhibiting the transformations of our present insect had in particular escaped without any material damage.

From



From the remarks of Dr. Smith on this particular subject, it is obvious he considered it only as a variety of the European kind of *Sphinx Convolvuli*. "We cannot discover," says this author, "any material distinction between this and the moth which feeds on plants of the same genus\* in Europe, and is often seen fluttering about in towns and houses, making as much noise as a bat, or small bird, for both which it is often taken by the vulgar. The reddish tinge on the under-wings of the American one, is the only difference we can find, and is surely not sufficient to make that kind any more than a variety, as Mr. Drury supposes it. Fabricius does not even distinguish it as such. Mr. (now Dr.) Latham informs us, this variety has been found in England."

Before we offer any observations likely to discountenance the persuasion of this respectable writer, it will not be amiss to state, that it appears to have been uniformly the idea of every entomologist, as well as Dr. Smith, with the exception of Mr. Drury, that our insect is only a variety of *Sphinx Convolvuli*. Mr. Drury remarks, in the manuscript note above adverted to, that they are certainly different, and that this difference is manifestly discernible. But while we rely on the description which Linnaeus affords of the species, it is perfectly consistent to maintain the contrary opinion; and it was hence depending on the Linnæan character, that in our description of *Sphinx Convolvuli*, we were inclined to speak of the present insect as a variety of the former, rather than as a new species. In adverting to the passage in which this supposed variety was mentioned, it will be however perceived, that we entertained, at that time, no inconsiderable degree of distrust as to the propriety of such an opinion, for it was then observed, that "it has all the characteristic marks of *Sphinx Convolvuli*, or we should hesitate to admit it as the same species." Such were the scruples at that time prevalent in our mind: we were unwilling to oppose the authority of Linnaeus, or we should have then constituted it a distinct species. Subsequent observations have tended only to strengthen the propriety of this suggestion, and to convince us, the Linnæan cha-

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\* Feeds in America on the sweet potatoe, *Convolvulus Batatus*.

acter of the species *Convolvuli* is too indefinite to form any precise criterion of the species.

On the latter topic we wish to speak more fully in explanation. There is nothing, we would observe, laid down in the Linnæan character to prove the two above-mentioned insects distinct; but, on the contrary, every character is calculated to confirm it. Linnæus had not, in all probability, seen this supposed variety: his specific definition was apparently drawn from examples of the European *Convolvuli*; and he was doubtless not aware that the character he assigned thereto was so far inapplicable as to apply to two distinct insects; these according in every character with the specific distinction he proposes, though in other respects they are remote from each other. Hence it is obvious, that our present insect may really, according to that character, be the *Sphinx Convolvuli*, or *Convolvuli var.* of Linnæus, though as a species it may be still dissimilar. The accuracy of this observation will be more amply demonstrated from the following comparison of the two insects, at present under consideration, with the specific character which Linnæus affords of the *Sphinx Convolvuli*.

Linnæus, in the earlier editions of his *Systema Natura*, thus defines the last mentioned species:—"Alis integris posticis albo fasciatis margine postico albo punctatis, abdomine rubro cingulis atris." According to which, the two insects before us would be at once distinguished as specifically distinct, the bands on the posterior wings being red in one, and white, or at least greyish white, in the other.

This description occurs in the tenth edition of the *Systema Natura*, and it is possible, though it appears otherwise expressed in the later editions of that work, that Linnæus still intended to preserve the same interpretation: it would be uncandid to conclude the contrary, though his words may bear a different acceptance, because he does not himself contradict this supposition. It appears, however, confining our attention solely to the description given of the species in the twelfth edition of that work, and in the subsequent editions published by Gmelin, that the two kinds may be still confounded, the colour of the paler bands  
forming,

forming, according to those descriptions, no criterion of the species. In the last mentioned work, the *S. Convolvuli* is thus described:—" *Alis integris, posticis nigro-fasciatis margine postico albo punctatis, abdomine rubro cingulis atris.*" And this description will be found applicable to either of the insects before us: in both the wings are entire, the posterior pair barred with black, the hinder margin dotted with white, and the abdomen red, with belts of black.

The Fabrician character of *S. Convolvuli*:—" *Alis integris nebulosis, posticis subfasciatis abdomine cingulis rubris atris albisque.*" *Syst. Ent.* 544.) will also agree very nearly with either: the wings in both are entire, and clouded: in both the posterior wings are barred, though slightly in *Convolvuli*, and conspicuously in the other, and in each the abdomen is belted with black and red, though in *Convolvuli* every segment is marked at the base with a band of white, no trace of which appears in the other.

From the above it will be inferred, that the description which the latest work of Linnæus offers will correspond with both the insects in question, and that of Fabricius will also accord in almost every essential particular; notwithstanding which, we are persuaded, for the following reasons, they ought to be considered as distinct:—

1. The *Sphinx Convolvuli*, so far as we have been enabled to compare the two kinds, is rather larger: this difference, we admit, may arise from the influence of climate, or any other adventitious cause.

2. There is a slight difference in the contour, the curvature in the sloping margin of the wings being most diffuse in *S. Convolvuli*.

3. The anterior wings in both are clouded and greyish, but in our present insect the grey is finely varied with ochraceous hues; and there is, besides, in the middle of the wings of the latter, a perfectly characteristic fuscous blotch, margined behind with an irregular greyish subcatenated band, neither of which appear in the wings of *S. Convolvuli*.



4. In both kinds the anterior wings are transversely barred, or lineated with a number of indented dark streaks, but in the form of those the most obvious difference prevails. These lines are most numerous in *S. Convolvuli*, and are in that insect so deeply indented as to exhibit a lozenge-form zic-zac, the arches (if the expression be allowable) being greatly elongated, and extending into an acute salient point. In our present insect, the corresponding lines are disposed across the anterior wings, in a similar manner; but these, besides being less considerable in number, are neither zic-zac, nor pointed, for though indented, the angles are almost uniformly rounded, so as to assume a scalloped instead of pointed arch-like appearance.

5. Another difference subsists in the under wings, and which, as well as that of the upper wings, is considerable. In *S. Convolvuli* the prevailing colour is grey, in the present fine rose-colour; in *S. Convolvuli* the black bands are four in number, in the present only three. The two middle bands in some examples of *S. Convolvuli* are indeed confluent, but in no instance whatever have we seen those bands so closely united as to constitute only a single apparent band; while in our present insect, the middle of the wings are traversed by a single band only, and that of a black colour, far more intense than we have ever observed in the bands of *S. Convolvuli*.

6. The larva or caterpillar of *Sphinx Convolvuli* is of a fine green colour, with a single narrow darker green line along the back; each of the segments also are marked on the sides with an oblique whitish yellow line, edged above with dusky or blackish; and four dusky spots, two of which are placed adjacent to the anterior part of the dorsal line, and the others are on each side contiguous to the spiracles. This is the last appearance it assumes before it passes into the pupa form; in the state previous to this last appearance, its colour is brown, with the sides ochraceous. The larva of our present insect we have not seen, but from the drawing made by Mr. Abbot, and which we have attentively compared with the former, there can remain no doubt of its being altogether a distinct species. These caterpillars, according to Abbot, are frequent in Georgia, though the moth is rare, and in the

former state its appearance must be familiar, therefore, to this assiduous collector. The prevailing colour in this delineation is brown, with longitudinal stripes of pale orange, rosy-white and yellow. Along the upper part of the back is a broad stripe of faint orange, inclosing, on each joint, an oblong, or somewhat shuttle-form spot of black, and which altogether exhibits a slightly interrupted or subcatenated band : this is succeeded beneath by a fuscous band of moderate breadth : a line still narrower, and of a delicate rosy-white, runs parallel to this lower edge of the fuscous band ; and beneath that the body is brown, with the exception of a yellow band, disposed immediately under the series of spiracles. The last mentioned band extends throughout the whole length, but is confluent on the anterior part of each segment, and there becomes so much produced and curved backwards as to appear deeply falcated. This is the last skin of the larva according to Abbot.

7. The difference in the pupa state is not considerable : they are nearly of the same form and colour ; a similarity in this state is, however, observable in many insects of very different species.

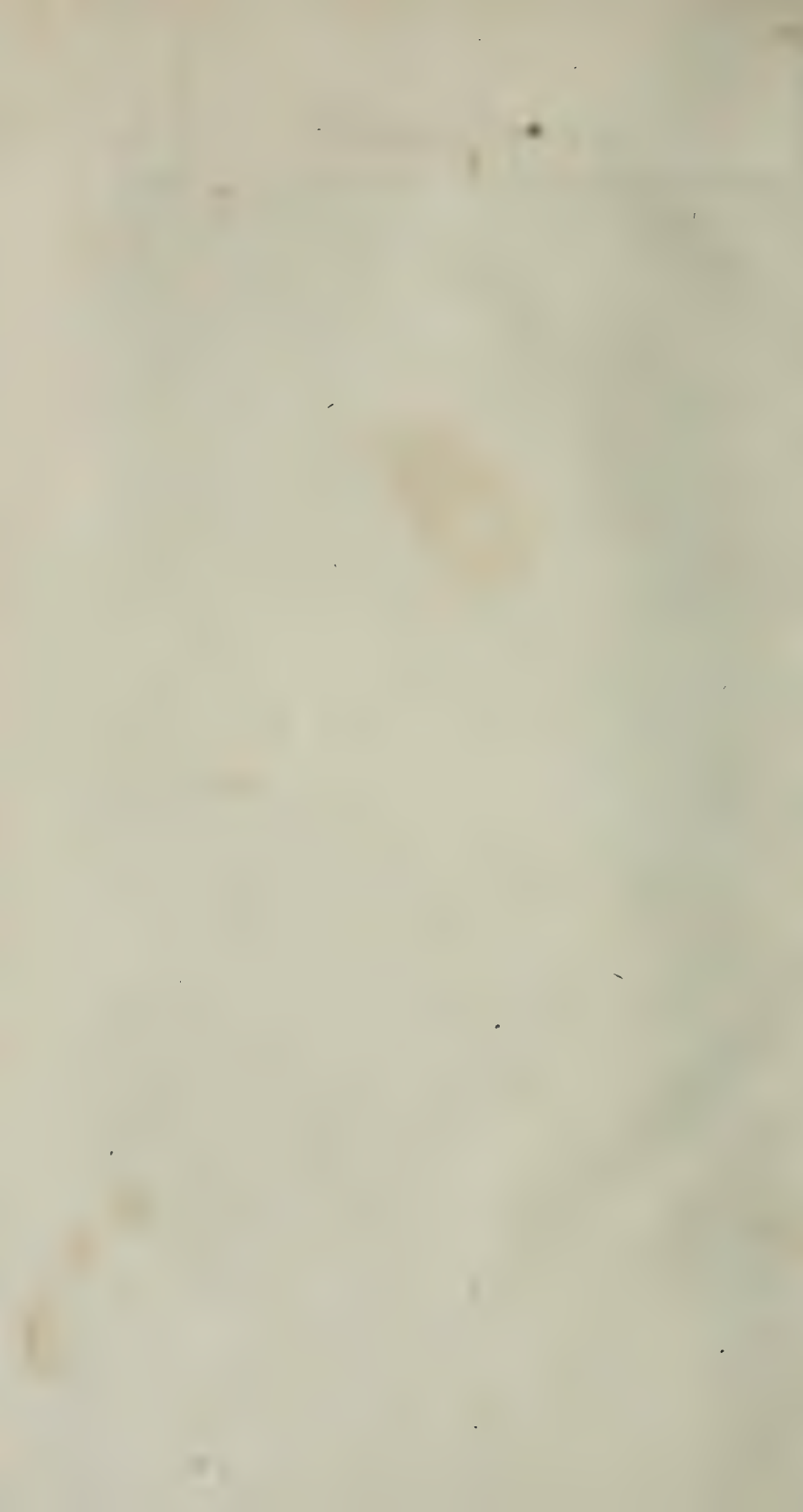
8. Neither is it conclusive, from the nature of their food, that they must be specifically allied, as vast numbers of very dissimilar insects are known to subsist on plants of the same kind.—The European *S. Convolvuli* feeds on the common bindweed *Convolvulus Major*, and the Georgian insect on the *Convolvulus Batatas*.

9. The time in which the *Sphinx Convolvuli* makes its first appearance in the winged state, is about the middle of September. The larva of the other, Mr. Abbot informs us, went into the ground on the 20th of August, and the fly came forth on the 11th of September : this was in Georgia ; but in Virginia, where he met with the same species, a larva of this kind buried itself on the 3d of October, and did not produce the fly till the 30th of May following.

We have thus endeavoured to state precisely every material circumstance, within our own knowledge, that could possibly tend to determine

mine in what particulars the two above-mentioned insects accord or disagree. For the prolixity of our statement we may claim some indulgence, as it was deemed incumbent to shew, that we were not disposed, on very trivial grounds, to contradict an opinion so generally prevalent, as that of the present insect being a variety only of *S. Convulvi*; an opinion that seems to have obtained an uniform ascendancy over the minds of entomologists in this country, and apparently of some on the continent also. Those insects, when examined with scrupulous attention, appear indeed to differ in so many essential respects, that it would seem impossible they could heretofore have been considered fully, or we apprehend it would not have remained for us to point out their differences. Upon the whole, therefore, we feel impressed with the propriety of considering them specifically distinct, though, at the same time, it must be acknowledged, at the first view, they might be casually admitted as varieties of each other.





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# PLATE CCCCLXX.

## SCARABÆUS GLOBOSUS.

GLOBOSE BEETLE.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ clavate, the club lamellate; feelers four; the anterior  
 flanks usually denticulate.

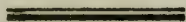
SPECIFIC CHARACTER

AND

SYNONYMS.

SCARABÆUS GLOBOSUS. Glossy blackish: head granulated: wing-  
 cafes striated.

ÆGIALIA GLOBOSA. *Latr. Gen. Crust. et Inf.*—*Aphodius. Illig.*  
*Panzer.*



A few years ago we discovered this curious insect in some plenty,  
 feeding, as it appeared, on the remains of certain marine vermes of the  
 Medusa tribe, thrown on the sandy shore of Barmouth, in the great  
 bay of Cardigan, North Wales. Before that period we have reason  
 to conclude this insect was unknown; it has been since described by  
 Panzer and Latreille, both of whom mention it as an inhabitant of  
 maritime marshes. The same insect has been also taken since we ob-  
 served

served it at Barmouth, in similar situations, in other parts of Britain. Mr. Hooke met with it near Hull, and Mr. Leach, at Clonkelty, in Ireland. It therefore appears, upon the most satisfactory information, to be a local species, and one confined to marshy and sandy places in the vicinity of the sea.

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# PLATE CCCCLXXI.

## FIG. I.

### MUSCA MYSTACEA.

#### DIPTERA.

#### GENERIC CHARACTER.

Mouth with a soft exerted fleshy proboscis, and two equal lips: sucker furnished with bristles: feelers two, and short, or sometimes none: antennæ generally short.

#### SPECIFIC CHARACTER

AND

#### SYNONYMS.

Black: head, margin of the thorax and tip of the abdomen yellow.

MUSCA MYSTACEA: nigra, thorace abdominisque apice flavis.  
*Linn. Fn. Suec.* 1793.

Syrphus mystaceus. *Fabr. Spec. Inf. T. 2. p. 421. 175. 1.—*  
*Schaff. Elem. t. 131.—Icon. t. 10. f. 9.*

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Inhabits woods.

FIG.

## FIG. II.

## MUSCA MERIDIANA.

## SPECIFIC CHARACTER.

Hairy, black : front golden : wings ferruginous at the base.

MUSCA MERIDIANA : nigra, fronte aurea, alis basi ferrugineis.

*Linn. Fn. Succ.* 1827.

*Fabr. Sp. Inf.* 2. p. 435. n. 3.

*Musca nigra*, alis basi ferrugineis. *Geoff. Inf.* 2. 495. 5.



Common in woody places throughout most parts of Europe.



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# PLATE CCCCLXXII.

## LIBELLULA CANCELLATA.

CANCELLED DRAGON FLY.

NEUROPTERA.

GENERIC CHARACTER.

Mouth armed with jaws, more than two in number: lip trifid: antennæ very thin, filiform, and shorter than the thorax: wings expanded: tail of the male furnished with a forked process.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings immaculate at the base: abdomen on the back and sides interrupted with yellow.

**LIBELLULA CANCELLATA**: alis basi immaculatis, abdomine, dorso lateribusque interrupte luteis. *Linn. Fn. Succ.* 1465.—*Syst. Nat.* 12. 544.—*Fab. Spec. Inf.* 1. p. 522. n. 15.—*Mant. Inf.* 1. p. 337. n. 15.



The description which the work of Linnæus affords of his *Libellula Cancellata* is remarkable for its brevity, and as he refers to no other authority, some distrust might arise as to the identity of the insect intended, were it not materially different from the other European species; inasmuch, indeed, that it cannot easily, we should imagine, be



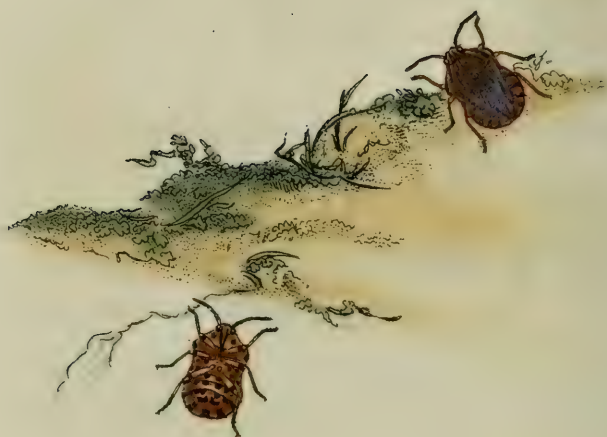
confounded with any other : the description, though concise, is expressive, and perfectly applicable to the insect before us. Fabricius speaks of the species only in the words of Linnaeus.

There is a figure of one of the Libellulæ in the work of Sulzer, given under the name of Cancellata, which nearly resembles the present insect, but is scarcely more than half its size ; and this figure is repeated from the same plate in the work of Roemer, but neither is referred to by Fabricius. The magnitude of L. Cancellata is not specified ; the figure appears to be tolerably correct, so far at least as to be understood, and we should rather suspect it to be a dwarf example of the same insect.

The "*Icones Inf. circa Ratibon.*" of Schæffer, plate 137, fig. 1. presents another representation, if we mistake not, of the species Cancellata, in size approaching much nearer to the specimen delineated in the annexed plate. It appears without any specific name, as usual, in that work. These are the only figures we at present recollect, that, in our opinion, are to be esteemed synonymous.

This interesting insect is delineated from a specimen in the cabinet of Mr. W. Leach, F. L. S.

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P L A T E CCCCLXXIII.

CIMEX NIGRO LINEATUS.

BLACK-LINED ELDER BUG.

HEMIPTERA.

GENERIC CHARACTER.

Snout inflected : antennæ longer than the thorax : wings four, folded across, the upper pair coriaceous on the superior part : back flat : thorax margined : legs formed for running.

SPECIFIC CHARACTER

AND

SYNONYMS.

Red : thorax with five black lines, scutellum with three : abdomen yellow, with black dots.

CIMEX NIGRO-LINEATUS : ruber : thorace lineis quinque, scutello tribus nigris, abdomine flavo : punctis nigris.  
*Fabr. Spec. Inf.* 2. p. 341. n. 15.—*Mant. Inf.* 2. p. 281. n. 17.—*Gmel. Linn. Syst. Nat.* 2131. n. 6.—*Schæff. elem. t.* 44. f. 1. *Icon. t.* 2. f. 3.

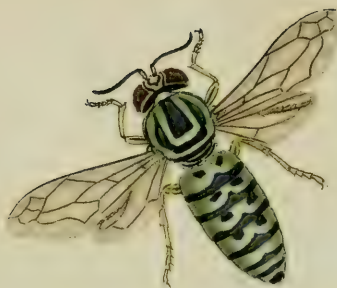


This beautiful insect is found in vast abundance in the south of Europe, and infests the flowers of the elder : in Britain the species is very rare.





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# PLATE CCCCLXXIV.

## BEMBEX OCTO-PUNCTATA.

OCTO-PUNCTATED WASP.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny, with arched and pointed jaws: tongue inflected and quinquefid: upper lip much advanced: feelers four, short, unequal, filiform: antennæ filiform, the first joint thrice the length of the others: eyes large, and occupying the whole sides of the head: body glabrous: sting pungent, and concealed in the abdomen.

SPECIFIC CHARACTER.

BEMBEX OCTO-PUNCTATA. Greenish, varied with bands and lines of black: two black dots on each of the first four segments of the abdomen.



The smaller figure in the annexed plate denotes the natural size of *Bembex octo-punctata*; the enlarged representation being intended to express its appearance before the lens of the opaque microscope.

We are not aware that any species of the *Bembex* genus has been before described or mentioned as a native of this country. The genus is rather limited in point of number, and is confined, with few exceptions, to extra European climates. *Bembex rostrata* is the most common of the European kinds, and is found in France, and other parts



parts of the continent, in some abundance, but has never, to our knowledge, occurred in England. Our present insect, and which is probably the only example of its kind hitherto discovered in this country, was taken by the late Mr. Drury, and is preserved in his cabinet now in our possession. Though extremely rare, it is not, however, to be considered as an unique insect, except as a British species, for we have observed two examples of the same kind in the splendid entomological collection of our worthy friend, A. M'Leay, Esq. F. R. S.

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## P L A T E CCCCLXXV.

## SCOLOPENDRA HORTENSIS.

GARDEN CENTIPEDE.

APTERA.

GENERIC CHARACTER.

Antennæ fetaceous : feelers two, filiform, and united between the jaws : lip toothed and cleft : body long, depressed, consisting of numerous transverse segments : legs numerous.

SPECIFIC CHARACTER.

SCOLOPENDRA HORTENSIS : fuscous : legs on each side twenty-one.



This Centipede appears to be of an undescribed species : it was discovered, in some abundance, by Mr. W. Leach, in the gardens at Exeter.

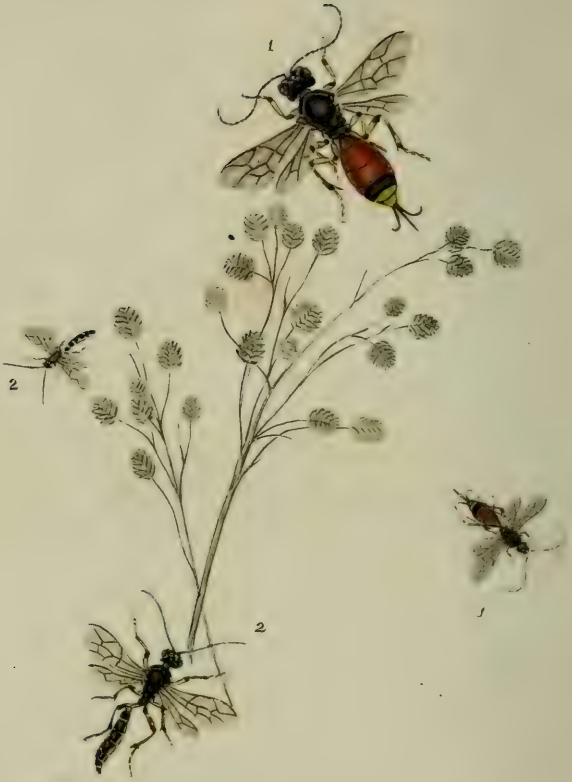
The natural size of this insect is delineated in the lower part of the annexed plate ; and from this it will be observed, that the species is of the more diminutive kind. In its general aspect it bears a very strong analogy to the great venomous Centipede of the eastern parts of the world, Scolopendra moritans. The resemblance is indeed so striking, that notwithstanding the disparity of size, were it not for the present species differing, in having a pair of legs more than that insect, we should not be inclined to think it specifically distinct. The number of legs in the Scolopendra genus is admitted by entomological writers



writers as a criterion of the species, and for this reason it is submitted as a new insect.

The figure in the upper part of the plate exhibits its magnified appearance.

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# PLATE CCCCLXXVI.

## FIG. I. I.

### ICHNEUMON LEUCORHÆUS.

#### WHITE-TAILED ICHNEUMON.

##### GENERIC CHARACTER.

Mouth with a straight horny membranaceous bifid jaw : the tip rounded and ciliated : mandibles curved, sharp ; lip cylindrical, membranaceous at the tip, and emarginate ; feelers four, unequal, and filiform, and seated in the middle of the lip : antennæ setaceous, of more than thirty articulations : sting exerted, inclosed in a cylindrical sheath composed of two valves, and not pungent.

##### SPECIFIC CHARACTER.

ICHNEUMON LEUCORHÆUS. Head and thorax black : body subglobose, and rufous, terminating in a black band, and yellowish white tip.

Ichneumon octogelinus primus. *Schæff. Icon. pl. 187. fig. 1.?*

---

The smaller figure denotes the natural size of this curious insect, the larger being considerably magnified. The globosity of the abdomen is remarkable, but not peculiar to this species : its legs are brown and black, and the antennæ rather longer than the wings. We have reason to believe this a rare species.



## FIG. II. II.

## ICHNEUMON COSTATOR.

## YELLOW-MARGINED ICHNEUMON:

*SPECIFIC CHARACTER.*

ICHNEUMON COSTATOR. Head and thorax black: body black, with the surrounding margin, and edge of the segments yellow.



A minute species, the natural size of which is represented by the smaller figure, No. I.



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# PLATE CCCCLXXVII.

## FIG. I

### CARABUS SYCOPHANTA.

#### GENERIC CHARACTER.

Antennæ filiform: feelers generally six, the last joint obtuse and truncated: thorax flat and margined: wing-cafes marginate.

#### SPECIFIC CHARACTER

AND

#### SYNONYMS.

Winged: shining violet: wing-cafes green-gold and striated.

**CARABUS SYCOPHANTA**: alatus violaceo-nitens: elytris striatis aureis. *Fabr. Sp. Inf.* 1. p. 303. n. 25.—*Mant. Inf.* 1. p. 197. n. 34.

**CARABUS SYCOPHANTA**: aureo-nitens, thorace cœruleo, elytris aureo-viridibus striatis, thorace subatro. *Linn. Fn. Succ.* 790.—*Gmel. Linn. Syst. Nat.* 1966. n. 12.—*Geoffr. Inf.* p. 1. p. 144. n. 5.—*Reaum. Inf.* 2. t. 37. f. 18.—*Sulz. Hist. Inf.* t. 7. f. 1.—*Bergstr. Nomencl.* 1. t. 12. f. 1. 2.

---

One of the largest and most splendid of the European Carabi, and which has not, till very lately, been discovered in England. It is mentioned, in the first instance, by Dr. Turton, as a British species,

and has, since that time, been met with by entomological collectors, both in Norfolk and Ireland. Mr. Hooker, F. L. S. possesses an example taken in England.

---

## FIG II. II.

## CARABUS CRUX MAJOR.

## LARGER CRUCIATE CARABUS.

## SPECIFIC CHARACTER

## AND

## SYNONYMS.

Thorax and head black and downy : wing-cases ferruginous, with a black cross.

CARABUS CRUX-MAJOR : thorace capitque nigro-villosa, coleoptris ferrugineis : cruce nigra. *Linn. Syst. Nat.* 673. 39.—*Faun. Succ.* 808.—*Fabr. Ent. Syst.* 1. a. 160. 158.—*Gmel.* 1978. 39.—*Marsh. Ent. Syst.* T. 1. p. 471.

CARABUS BIPUSTULATUS. *Fabr. Syst. Ent.* 207. 59.—*Sp. Inf.* 1. 312. 74.

Le Chevalier noir. *Geoffr.* 1. 150. 17.

*Buprestis cruciata.* *Panz. Voct.* 2. 70. 7. t. 34. f. 7.

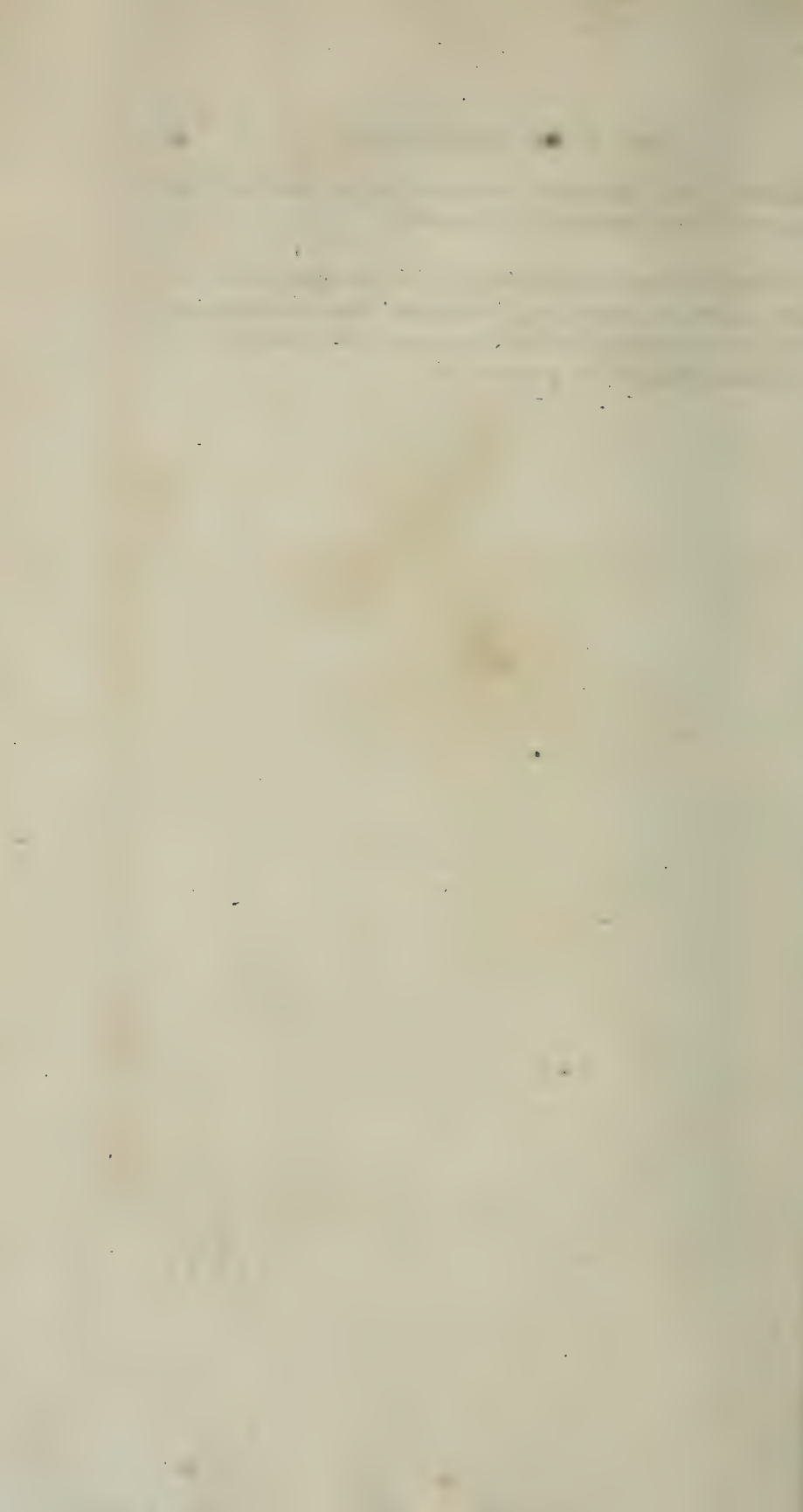
---

An insect of elegant formation, very beautiful in colour, and of the greater interest to the English naturalist, as being rare. The black cruciate mark on the red wing-cases constitute a character of much singularity.



singularity. The species is of a moderate size, or rather small, and appears to peculiar advantage when magnified.

The smaller figure on the blade of grass in the upper part of the plate exhibits the natural size; the magnified figure is enlarged to about the magnitude of *Carabus Sycophanta*, a size which admits of its being depicted with the greater fidelity.



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## P L A T E CCCCLXXVIII.

## ICHNEUMON BILINEATOR.

## BILINEATED ICHNEUMON.

## HYMENOPTERA.

## GENERIC CHARACTER.

Mouth with a straight horny membranaceous bifid jaw, the tip rounded and ciliated : mandibles curved, sharp ; lip cylindrical, membranaceous at the tip, and emarginate : feelers four, unequal, filiform, and seated in the middle of the lip : antennæ setaceous, of more than thirty articulations : sting exerted, inclosed in a cylindrical sheath composed of two valves, and not pungent.

## SPECIFIC CHARACTER.

ICHNEUMON BILINEATOR : black : two incurvate yellow lines on the head : scutellum and antennæ in the middle whitish.

ICHNEUMON MOLITORIVS *var.* ?

---

This curious insect resembles, in a very peculiar degree, the *Ichneumon molitorius*, from which it is, however, distinguished by its superiority in size, and the two yellowish lines on the back part of the head : these lines are placed between the eyes as remotely as possible, each forming a marginal fillet, which partially surrounds the contiguous eye. We scarcely feel authorized in the persuasion of its being only a variety of the above-mentioned insect, although, from its general aspect,



aspect, this opinion does not appear altogether improbable : to us it seems rather a distinct species than variety. Many examples of *Ichneumon molitorius* have occurred to our own observation, but we have never perceived in any of these the slightest trace of the yellow lines, so conspicuous on the head of the present insect.

The specimen, from whence the above figure is taken, is the only one of its kind with which we are acquainted.

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# PLATE CCCCLXXIX.

## FIG. I.

### PHALÆNA PECTINATARIA.

GREEN CARPET MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base ; wings in general deflected when at rest. Fly by night.

SPECIFIC CHARACTER.

PHALÆNA PECTINATARIA. Anterior wings greenish, with base, and two denticulated bands darker : two fuscous V-like marks on the costal margin, and fuscous spot near the tip : posterior wings with a band of dots below the middle.

PHALÆNA PECTINATARIA. *Marsh. M.S.*

---

One of the most frequent of the moth tribe, distinguished by the name of " Carpets."

## FIG. II.

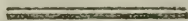
## PHALÆNA RUPTATA.

BROKEN BAR, or HORNSEY CARPET MOTH.

## SPECIFIC CHARACTER.

PHALÆNA RUPTATA. Anterior wings subtestaceous: base, interrupted broad band in the middle, and spot at the tip fuscous, jagged, and margined with white: posterior wings pale, with central dot.

GEOMETRA RUPTATA. *Hüb. Schmet. Geom.* 57. 295.—*Sepp.* p. 11. pl. 14?



An elegant and by no means abundant species, found in the woods during the month of June. This insect appears to be rather local, and from being usually taken by collectors in the woods of Hornsey, has long since obtained among them the trivial appellation of the Hornsey Carpet Moth.



## FIG. III.

## PHALÆNA MIATA.

AUTUMN GREEN CARPET.

## SPECIFIC CHARACTER.

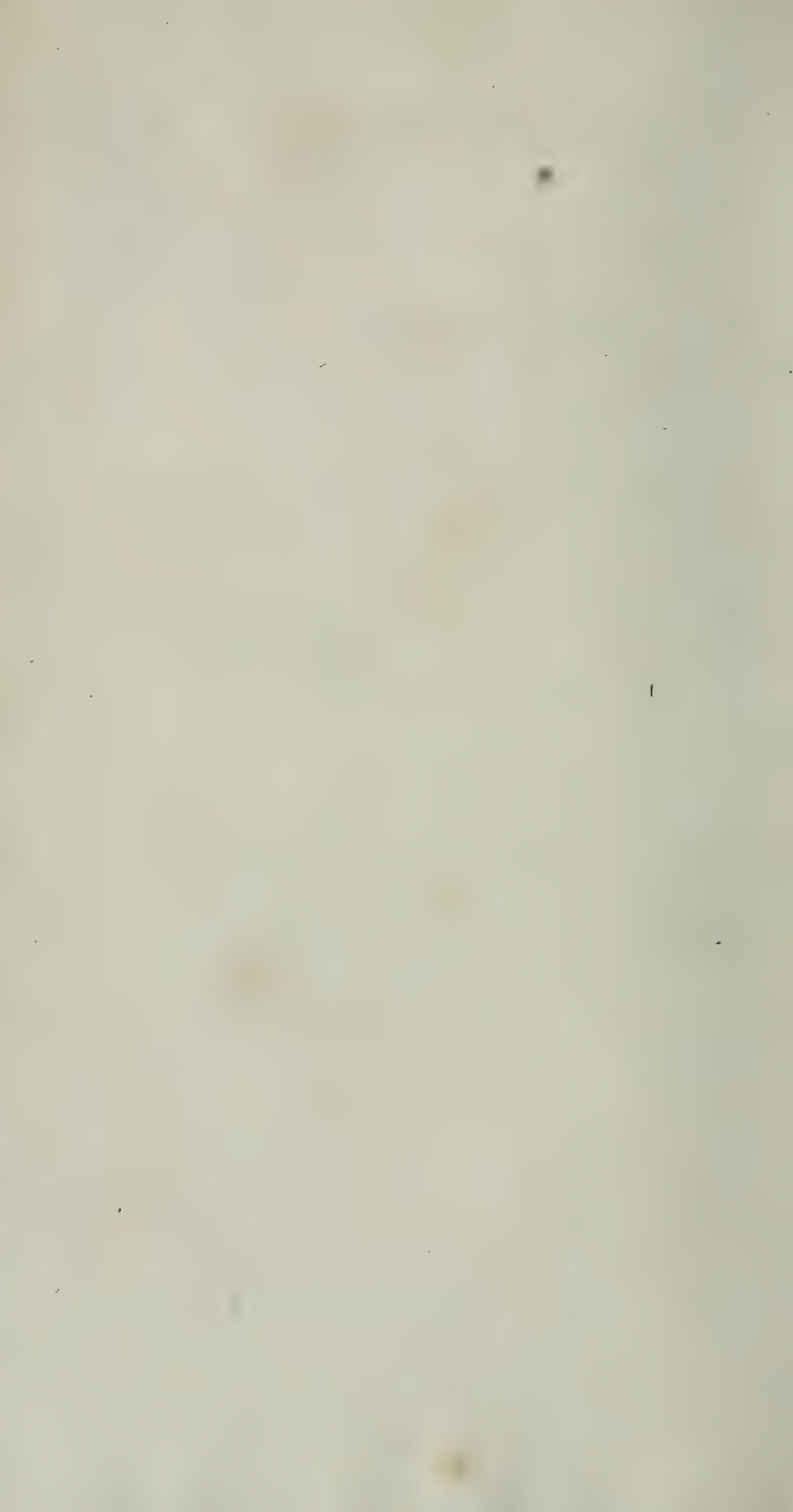
PHALÆNA MIATA. Wings grey-green, with three greenish bands; the middle one waved with brown: posterior wings pale, with faint scalloped bands, and central dot.

PHALÆNA MIATA: alis griseis: fasciis tribus viridibus: inter media latiore fusco undata. *Linn. Syst. Nat.* 2. 869. 249.—*Clerk. Icon. pl.* 8. fig. 2.

PHALÆNA MIATA. *Fab. Ent. Syst.* 3. 180. 183.

---

Appears in the winged state late in Autumn, whence it has obtained the name of Autumn Green Carpet. The species varies in point of colouring as well as size, and also seems to be very local, if not rare. Among the collectors near London, it is rather better known by the title of Dartford Green Carpet, (from being met with chiefly in the woods adjacent to the town of Dartford, in Kent) than by that of Autumn Green Carpet.



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# P L A T E   C C C C L X X X .

## CARABUS MELANOCEPHALUS.

BLACK HEADED CARABUS,

### GENERIC CHARACTER.

Antennæ filiform : feelers generally fix, the last joint obtuse and truncated : thorax flat, and margined : wing-cafes marginate.

### SPECIFIC CHARACTER

AND

### SYNONYMS.

Thorax and legs ferruginous : head and wing-cafes black.

CARABUS MELANOCEPHALUS: thorace pedibusque ferrugineis, elytris capiteque atris. *Linn. Fn. Suec.* 795.—*Gmel. Linn. Syst. Nat.* 1973. n. 22.—*Fabr. Sp. Inf.* 1. p. 310. n. 64.—*Mant. Inf.* 1. p. 202. n. 89.—*Marsh. Ent. Brit.* 1. 438. 15.

Buprestis dorso rubro. *Panz. Voet.* 2. 73. 15.

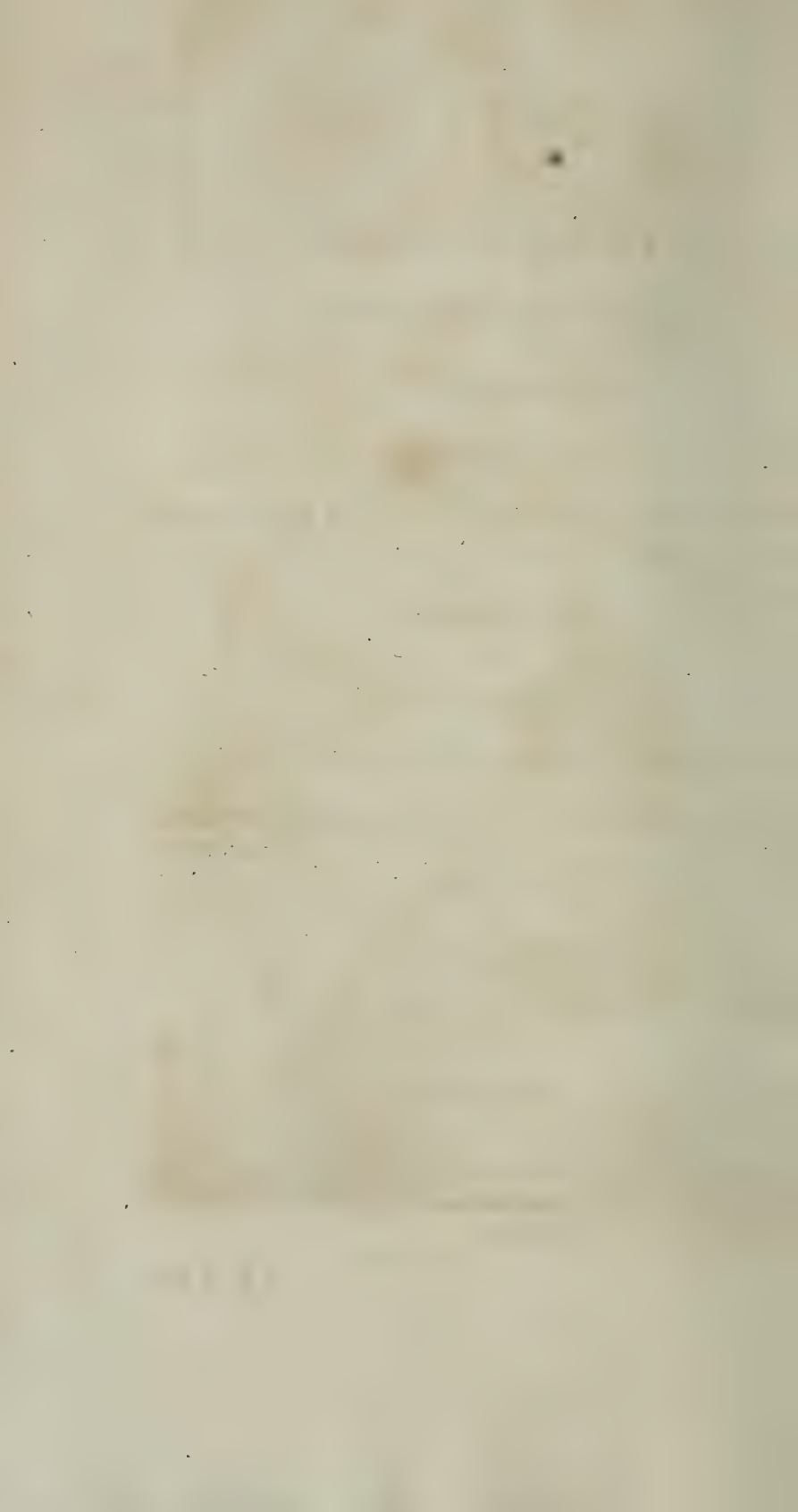
Le Bupreste noir à corcelet rouge. *Geoff.* 1. 162. 42.



The small figure in the annexed plate denotes the natural size. Linnaeus describes it as a sylvan species. We met with it in plenty in the woods of Erdig, Denbighshire.

P L A T E





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## P L A T E CCCCLXXXI.

## PAPILIO ARGIOLUS.

AZURE BLUE BUTTERFLY.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ clubbed at the end: wings erect when at rest. Fly by day.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings without a tail: above blue, with black margin: beneath blueish, with black dots.

PAPILIO ARGIOLUS: alis ecaudatis supra cœruleis margine nigris, subtus cœrulescentibus: punctis nigris dispersis.  
*Linn. Fn. Suec.* 1076.—*Gmel. Syst. Nat. T. 1.*  
*p. 5. 2350. 234.*

HESPERIA ARGIOLUS. *Fabr. Spec. Inf. 2. p. 123. n. 551.*—  
*Mant. Inf. 2. p. 73. n. 686.*

---

Papilio Argiolus is a very beautiful species: the female, which is rather larger than the male, is of a vivid azure blue on the upper surface; the female blueish, inclining to purple: the under surface in both are very nearly similar.

The

The larva of this butterfly is rarely met with : in the fly state the species is not uncommon, appearing about the middle of the day, in sunny weather, on the skirts of meadows : one brood in the month of June or July, and another the latter end of August. The larva is to feed on grass.



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## P L A T E   C C C C L X X X I I .

## GRYLLUS RUFUS.

## RUFIOUS GRASSHOPPER.

## HEMIPTERA.

## GENERIC CHARACTER,

Head inflected, armed with jaws: feelers filiform: antennæ setaceous or filiform: wings four, deflected, convolute: the lower ones plaited: hind legs formed for leaping: claws double on all the feet.

## SPECIFIC CHARACTER

## AND

## SYNONYMS.

Thorax cruciate: body fuscous: abdomen rufous: antennæ subclavated and pointed.

GRYLLUS RUFUS: thorace cruciato, corpore rufo, elytris griseis, antennis subclavatis acutis. *Gmel. Linn. Syst. Nat.* 2081. n. 56.—*Gryllus antennis subclavatis acutis. Linn. Fn. Succ* 629.

GRYLLUS FUSCUS: abdomine rufo, antennis subclavatis. *Fabr. Sp. Inf.* 1. p. 371. n. 48.—*Mant. Inf.* 1. p. 239. n. 55.  
*Schæff. Icon. tab.* 136. *fig.* 4, 5?

The structure of the antennæ in this species of grasshopper is altogether singular and characteristic, the extreme end being dilated into a pretty considerable capitulum of a compressed subovate form, terminating in nearly an acute point; and which at the first view bears a strong resemblance to the antennæ of certain species of the papilionæ. Appearances of this kind are rare in the *Gryllus* tribe; the species *clavicornis*, a native of Surinam, has antennæ nearly corresponding, and we possess another British species, the antennæ of which are constructed in a similar manner.

We must acknowledge, that it appears somewhat anomalous to place these insects with clavated antennæ, among the true *Grylli*, one decisive character of which consists in the antennæ being filiform; notwithstanding their similitude in other particulars, they might, perhaps, with far more propriety, constitute a distinct genus.

This species is of the size represented, and it is to be observed, that the antennæ in one sex is larger than in the other.

*Gryllus rufus* is described as being very common in sterile fields in various parts of Europe: on the banks in the Battersea meadows, near the river, it is observed in some abundance during the month of September, as we are informed by Mr. Leach.

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# PLATE CCCCLXXXIII.

## SIREX DROMEDARIUS.

DROMEDARY SAW-FLY.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth with a thick horny truncated short denticulated mandible : feelers four, the posterior ones longer and thicker upwards : antennæ filiform, of more than twenty-four equal articulations : sting exerted, ferrated, stiff : abdomen sessile, terminating in a point : wings lanceolate, incumbent, the lower ones shorter.

SPECIFIC CHARACTER

AND

SYNONYMS.

Abdomen black, rufous in the middle, with a white dot on the side of each segment : flanks white at the base.

SIREX DROMEDARIUS : abdomine atro : medio rufo ; puncto untrinque albo, tibiis basi albis. *Fabr. Ent. Syst. T. 2. p. 128. 16.*—*Ross. Fn. Etr. 2. 34. 737.*—*Gmel. 2673. 5.*

This elegant little insect is most accurately and minutely described by Fabricius\*, from a specimen taken at Kiel, in Prussia, and preserved in the cabinet of Daldorf. According to Rossius, it is also a native of Italy. We believe the species has not been before noticed as an inhabitant of Britain.

Our drawings are taken from a specimen in the cabinet of Mr. W. Leach, F. L. S. The smaller figure denotes the natural size.

It should be observed, that the antennæ do not strictly agree with those of the *Sirex* genus in general, the joints being fewer in number, and exhibiting also some less material difference in their general structure.

---

\* Statura & summa affinitas *S. Cameli*. Caput globosum, nigrum lineolis duabus verticalibus albis. Thorax antice angustatus, niger puncto ante alas albo. Alæ obscuræ. Abdominis segmentum 1, 2 nigra, 3, 4, 5, 6, 7 rufa, 8 nigrum macula utrinque alba, 9 nigrum, immaculatum.

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# PLATE CCCCLXXXIV.

## CARABUS CEPHALOTES.

### COLEOPTERA.

#### GENERIC CHARACTER.

Antennæ filiform : feelers generally six, the last joint obtuse and truncated : thorax flat and margined : wing-cases marginate.

#### SPECIFIC CHARACTER

AND

#### SYNONYMS.

Deep black, thorax attenuated behind, the posterior margin rugose with dots : wing-cases smooth, and scarcely striated.

CARABUS CEPHALOTES : ater, thorace posticè attenuato, margine postico punctato-rugoso, elytris lævibus obsoletissimè striatis. *Marsh. Ent. Brit. T. 1. 472. n. 107.*

CARABUS CEPHALOTES : apterus, elytris atris lævibus, thorace exserto oblongo. *Linn. Fn. Suec. 788.—Gmel. Linn. Syst. Nat. T. 1. p. 4. 1964. 9.*

CARABUS CEPHALOTES : apterus ater lævissimus, thorace orbiculato convexo. *Fabr. Sp. Inf. 1. p. 304. n. 27. —Mant. Inf. 1. p. 198. n. 39.*

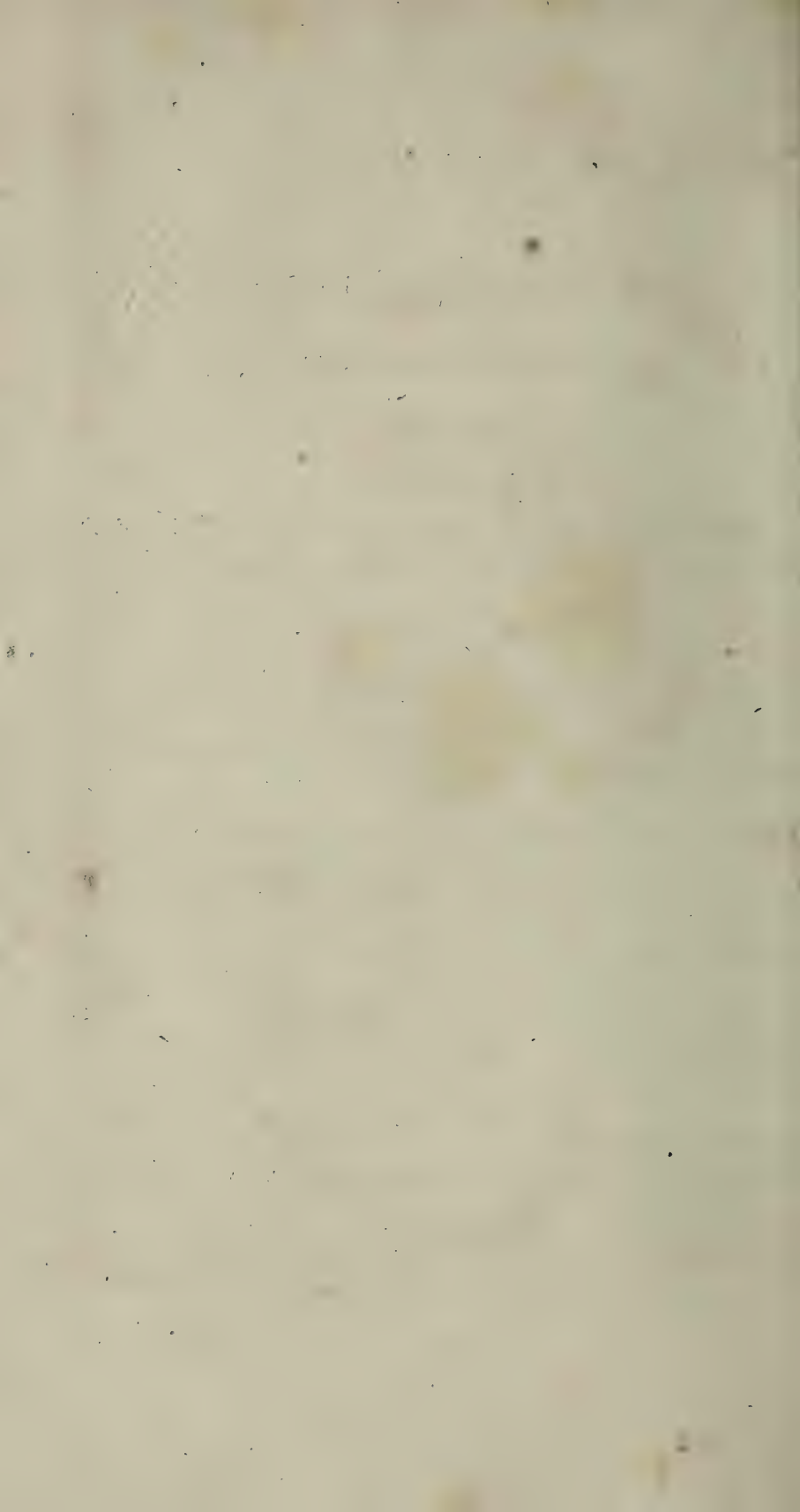
SCARITES CEPHALOTES. *Panz. Ent. Germ. 37. 5.*

Pseudocypis major. *Panz. Voet. 2. 64. 2. t. 33. f. 2.*

---

Found on sandy shores of the sea.

PLATE



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# PLATE CCCCLXXXV.

## FIG. I. II.

### PHALÆNA LINEATARIA.

PALE TRIPLE-BAR MOTH.

#### GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip : tongue spiral : wings in general deflected when at rest. Fly at night.

\* GEOMETRA.

#### SPECIFIC CHARACTER.

PHALÆNA LINEATARIA. Pale : anterior wings with an oblique bilineated band at the base : trilineated band near the tip : bar in the middle angulated, and inclosing a dot near the costal margin : posterior pair sublineated : exterior margin of all the wings dotted.

---

This we are inclined to consider as an extremely rare species. The specimen represented in the upper part of the plate, and to which the figure I. is annexed, will be observed, at the first view, to differ from that shewn beneath at figure II. in the distinctness of its markings; but this alone seems to constitute their real difference, as every lineation in the lower specimen accords with those exhibited in the insect shewn above. The latter appears to be either a pale variety, or an example of the species in less perfect condition than the other. Both insects are shewn in their natural size.

FIG.

## FIG. III.

## PHALÆNA RUBRO-VIRIDATA.

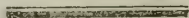
BULLSTRODE GREEN CARPET MOTH.

## SPECIFIC CHARACTER.

PHALÆNA RUBRO-VIRIDATA. Anterior wings greenish, tinged with rufous: base and broad band in the middle subfuscous: posterior wings brownish.

PHALÆNA RUBRO-VIRIDATA. *Marsh. M. S.*

PHALÆNA PSITTACATA. *Fabr. Ent. Syst.* 3. 195. 233 ?



Occurs in the winged state in the month of October.

We are not without suspicion, that the moth represented in that scarce work, the "*Icones*" of Clerk, (fig. 8. pl. 4.) may be intended for an insect of this species. The figure appears without any name.



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# PLATE CCCCLXXXVI.

## CARABUS CREPITANS.

MUSKETEER BEETLE.

### GENERIC CHARACTER.

Antennæ filiform : feelers generally six, the last joint obtuse, and truncated : thorax flat and margined : wing-cafes marginate.

### SPECIFIC CHARACTER

AND

### SYNONYMS.

Head, thorax, and legs ferruginous : wing-cafes blue-black.

CARABUS CREPITANS : capite thorace pedibusque ferrugineis, elytris nigris. *Linn. Syst. Nat.* 671. 18.—*Fn. Succ.* 792.—*Fabr. Syst. Ent.* 242. 35. *Sp.* 1. 307. 44.—*Mant.* 1. 200. 61.—*Panz. Ent. Germ.* 51. 35.—*Oliv.* 3. 35. 64. 80.—*Marsh. Ent. Brit.* 1. 468. 96.

Le Bupreste à tête, corcelet, et pattes rouges et étuis bleus. *Geoffr.* 1. 151. 19.

---

An insect of small size that inhabits Europe, and is sometimes found in England, where it is far from common.

This species is remarkable only for the peculiar mode of defence which it instinctively adopts when closely pursued by carnivorous insects, or other enemies: on these occasions, it emits a distinct, and rather loud noise, either from the vent, or, as some suppose, from the friction of the wing-cases. This sound it has the ability to repeat several times, and which, it may be imagined, is seldom exerted without success; the unexpected explosion for the moment alarming or repulsing its pursuer, and allowing, by that means, a convenient interval for the insect pursued to effect its escape.

An enlarged figure of this insect is given with its natural size,

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# PLATE CCCCLXXXVII.

## FIG. I. I.

### PHALÆNA TESTACEATA.

PALE SCALLOP MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip : tongue spiral ; wings in general deflected when at rest. Fly at night.

\* GEOMETRA.

SPECIFIC CHARACTER.

PHALÆNA TESTACEATA. Whitish, with numerous testaceous scalloped lines : a common broad pale band in the middle ; and marginal series of oblong black dots.



The insect from whence the above description and annexed figures are taken, is the only example of its species we have seen, and hence we are inclined to consider it exceedingly scarce, if not perfectly unique. The smaller figure exemplifies the natural size.

## FIG. II.

## PHALÆNA CUNEATA.

CUNEATE MOTH.

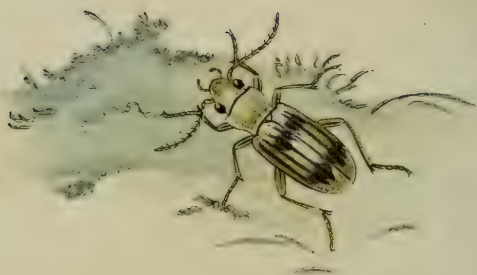
## SPECIFIC CHARACTER.

PHALÆNA CUNEATA. Anterior wings fuscous, with two pale broad bands, the inner one angulated, and the exterior marked in the middle with a single series of cuneate fuscous spots.

---

A species of very striking appearance, and sufficiently distinguished by the series of wedge-formed spots disposed along the pale exterior band of the upper wings. The fuscous ground colour forms a pretty broad and distinct band in the middle of the wings, and is further characterized by an oblong, and somewhat paler spot, contiguous to the anterior margin, as well as a geminous or rather bipupillate spot at the posterior edge of the same band. The lower wings are whitish, with pale fuscous scalloped marginal lines, and a dusky dot in the middle.

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# PLATE CCCCLXXXVIII.

## CARABUS COMPLANATUS.

SAND CARABUS.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ filiform: feelers generally fix, the last joint obtuse and truncated: thorax flat and margined: wing-cases marginate.

SPECIFIC CHARACTER .

AND

SYNONYMS.

Pale: two black-waved lines on the wing-cases.

CARABUS COMPLANATUS: pallidus, elytris fasciis duabus undulatis nigris. *Linn. Syst. Nat.* 2. 671. 17.

CARABUS ARENARIUS: pallidus elytris maculis duabus dorsalibus atris. *Fabr. Spec. Inf.* 1. 305. 34.—*Syst. Ent.* 241. 26.—*Mant. Inf.* 1. p. 199. n. 46.

---

The very elegant and interesting species of Carabus, at present before us, appears to be the original *C. Complanatus* of Linnæus: this we learn from the authentic specimen of that insect described by Linnæus himself, and which, constituting a part of the Linnæan cabinet, is now in the possession of Dr. Smith.

The

The same insect is, beyond dispute, the genuine *Carabus arenarius* of Fabricius, as may be clearly ascertained from the original example of that species described by Fabricius in the Bankian cabinet. Fabricius was doubtless not aware that it had been previously described, and therefore, from its habits of life, very appositely assigned it the specific name of *arenarius*: the Linnæan name, however, deserves the preference in point of priority, and, being perfectly admissible, should in candour be retained.

Linnæus, perhaps on authority not sufficiently explicit, speaks of his species *Complanatus* as an inhabitant of the island of St. Domingo. It is possible, his information in this respect might be correct, but we are rather inclined to think it doubtful. Its existence, as a British species, is determined in the most conclusive manner.

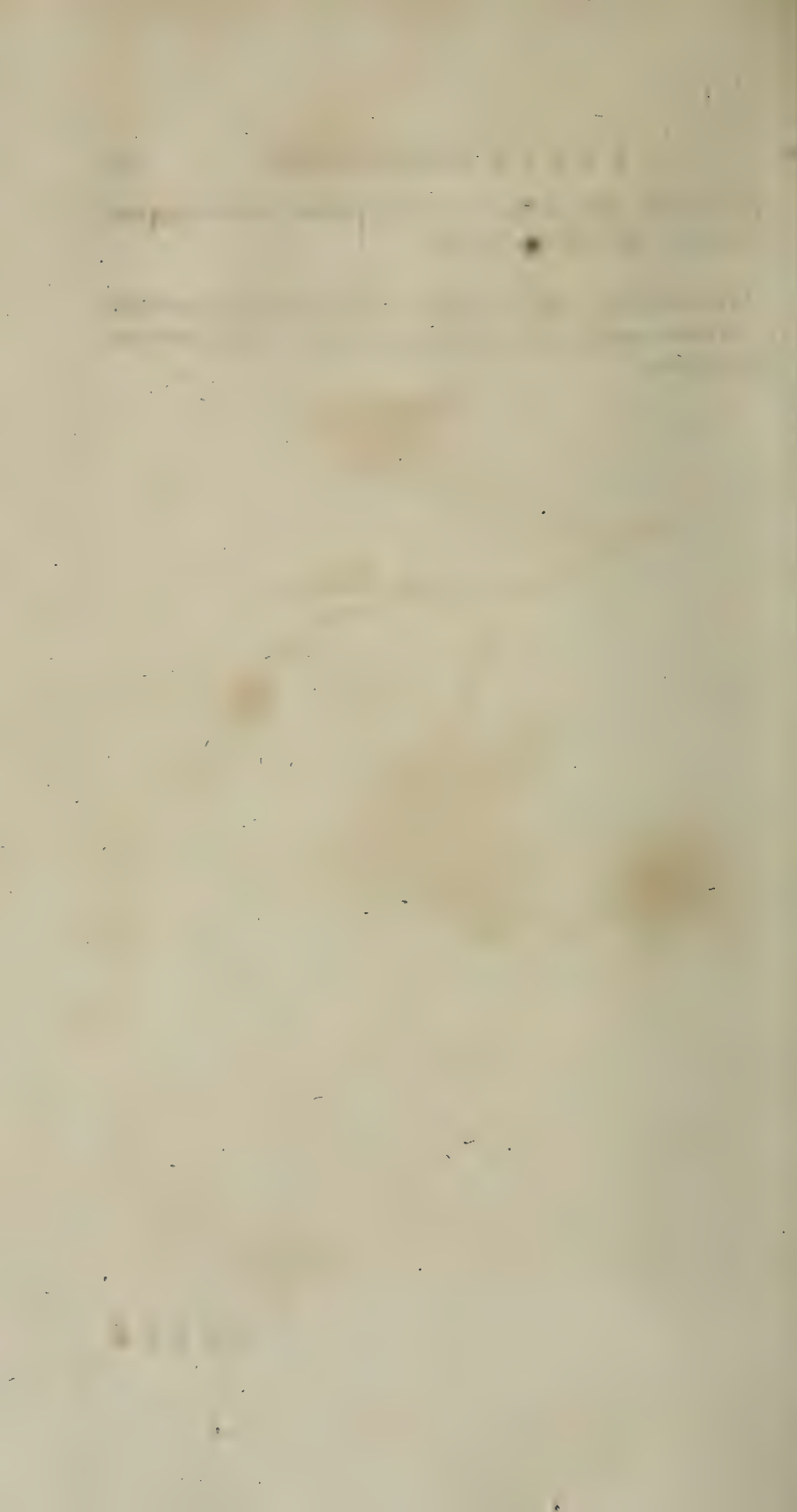
It will not be improper to observe, that the first example of this species, discovered in Britain, was taken, some years ago, by Sir Joseph Banks on the sandy shores of Wales, a circumstance to which Fabricius adverts, though slightly. From the time of its discovery, we have reason to believe it was not again observed till within a very recent period, when, on further search about the same shores where it was first observed, it was again found, and in considerable plenty. During the summer of the year 1809, it was taken in abundance under the drift-wood on the shores near Cromlyn Burrows, in the vicinity of Swansea, by Mr. W. Leach, F. L. S.; and prior to that period, Mr. L. W. Dillwyn, F. L. S. met with it on the sands below the town of Newton, in Glamorganshire.

In a living state, this curious insect appears uncommonly pellucid, and this appearance is retained in a certain degree even in the examples dried, and prepared for the cabinet: the general colour is pale testaceous, or yellowish, with the extreme tips of the jaws and eyes brown. The two black or deep brown spots on the back constitute distinct denticulated bands; and two or more of the longitudinal striæ, which intersect the pale transverse band between those spots, are likewise



likewise black. The whole of the lower surface, with the legs and antennæ, are pale yellowish testaceous.

In conclusion we ought to mention, that this insect varies materially in the form, and also in the intensity of the black or dusky marks on the wing-cases.



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# PLATE CCCCLXXXIX.

## APIS MANICATA.

MANICATED BEE.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny: jaw and lip membranaceous at the tip: tongue inflected: feelers four, unequal, and filiform: antennæ short and filiform in the male, in the female subclavated: wings flat: sting of the females and neuters pungent, and concealed in the abdomen.

SPECIFIC CHARACTER

AND

SYNONYMS.

Cinereous, abdomen black, with yellow lateral spots: tail armed with five teeth.

APIS MANICATA: cinerea, abdomine nigro, maculis flavis lateribus, ano quinque dentato. *Fabr. Ent. Syst. n. 73.*

APIS MANICATA: nigra, pedibus anticis hirsutissimis, abdomine maculis lateribus, ano tridentato. *Linn. Syst. Nat. 12. n. 28.—Fn. Succ. 1701.*

*Fourcroy. Ent. Par. n. 3.*

*Geoff. Hist. Inf. Par. 2. 408. n. 3.*

*Kirby. Ap. Angl. V. 2. 248. 47.*

The five distinct denticles at the extremity of the abdomen form an excellent specific distinction of this kind of bee. The species is very common in some parts of Britain. When on the wing, it is observed to hover over flowers in the same manner as *Sphinx Stellatarum*: the *Glechoma hederacea* (ground-ivy) appears to be its favourite, being found during the greater part of the summer on beds of these fragrant plants.

When the female prepares to construct the nidus in which the infant brood is to be deposited, she seeks a convenient hollow in old palings, the cavity of a wall, or other retreat eligible for her reception; and having determined the spot, she next resorts to some tomentous or woolly kind of plant, to obtain materials for the completion of her object. The portion of down required she strips or shaves off with astonishing celerity and address, conveys it away to her hiding-place in bundles between her head and fore legs, and repeats her visits till the quantity procured prove sufficient for her use. She then proceeds to line the inside of the cavity with the down, and lays her eggs, each of which is enveloped in a separate covering, composed of the same vegetable materials.

Some accurate observers of the habits of this industrious little insect have been led to imagine, that it employs only the tomentum or down of one particular kind of plant, namely, that of *Agrostemma coronaria*; and it does indeed appear, from the result of their remarks, that the nidus is in general constructed with the down of this species of vegetables. There is nevertheless some reason for believing, that the down collected for this purpose is not on every occasion confined exclusively to the plant before mentioned.



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# P L A T E CCCCXC.

## FIG. I.

### MUSCA INANIS.

#### DIPTERA.

#### GENERIC CHARACTER.

Mouth with a soft exerted fleshy proboscis, and two equal lips : sucker furnished with bristles : feelers two, and short, or sometimes none : antennæ generally short.

#### SPECIFIC CHARACTER

#### AND

#### SYNONYMS.

Brown : abdomen pale yellow, with three black bands.

MUSCA INANIS : antennis plumatis pilosa flavescens, abdomine pellucido cingulis duobus nigris. *Linn. Syst. Nat.* XII. 2. p. 989. n. 61.—*Fn. Suec.* 1825.

SYRPHUS INANIS : fusca, abdomine pellucido : cingulis tribus nigris. *Fabr. Spec. Inf.* 1. p. 435. n. 1.—*Mant. Inf.* 1. p. 342. n. 1.

Musca apivora. *Degeer. Inf.* 6. p. 56. n. 3. t. 3. f. 4.

Volucella sexta. *Schæff. Icon. pl.* 36. fig. 7. 8.

---

This is an interesting species, and not common : the figure denotes the natural size.

## FIG. II.

## MUSCA HIRSUTA.

## SPECIFIC CHARACTER.

Deep black, glossy, and beset with long bristly hairs : wings blackish, at the base subfuscous.

MUSCA TREMULA. *Fabr. Spec. Inf.* 2. p. 442. n. 32?



The present insect bears a strong resemblance to the *Musca grossa*, of which it might be considered, at the first view, as a dwarf variety, being rather less than half the size of that species. As in *Musca grossa*, the thorax and abdomen are beset with stiff bristly hairs, but these are more numerous, and at least twice the length in proportion, in the present species, to those on the former insect.

The *Musca hystrix* of Drury is very similar to this in appearance, but is larger : it approaches, however, still nearer the insect called by Harris (Expof.) *Musca obsidianus*, than *Musca hystrix*.

From the cabinet of Dr. Letfom,

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# PLATE CCCCXCI.

## CERAMBYX CORIARIUS.

### LARGE ELM CERAMBYX.

#### COLEOPTERA.

#### GENERIC CHARACTER.

Antennæ fetaceous: eyes lunate, and embracing the base of the antennæ: feelers four: thorax spinous, or gibbous: wing-cases linear: body oblong.

#### SPECIFIC CHARACTER

AND

#### SYNONYMS.

Thorax three-toothed: body pitchy: wing-cases mucronate: antennæ shorter than the body.

CERAMBYX CORIARIUS: thorace tridentato, corpore piceo, elytris mucronatis, antennis brevioribus. *Linn. Syst. Nat.* 622. 7.—*Fn. Suec.* 647.—*Gmel.* 1815. 7. *Marsh. Ent. Brit. T.* 1. p. 325. 1.

PRIONUS CORIARIUS. *Fabr. Syst. Ent. t.* 24. f. 4.—*Spec. Inf.* 1. 206. 9.—*Mant.* 1. 129. 13.—*Ent. Syst. i. b.* *Panz. Faun. Germ.* 9. t. 8.

Cerambyx Prionus. *Degeer, v.* 59. 1. t. 3. f. 5.

Le Prione, *Geoff.* 198. 1. t. 3. f. 5.

Both sexes of this curious beetle are represented in the annexed plate, the male in the attitude of crawling on the ground, the female in the act of flight. The female is rather larger than the male, and has the antennæ of a more setaceous form. The antennæ of the other sex are remarkable for their magnitude, and contribute very materially to the interesting appearance of the insect.

*Cerambyx Coriarius* is the most conspicuous insect, in point of size, among the British cerambyces, and is always considered as a scarce and valuable species. It is found chiefly in decayed wood, more especially in the trunks of rotten elms.

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# PLATE CCCCXCII.

## APIS MELLIFICA.

COMMON BEE.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny : jaw and lip membranaceous at the tip : tongue inflected : feelers unequal, and filiform : antennæ short and filiform in the males : in the female subclavated : wings flat : sting of the females and neuters pungent, and concealed in the abdomen.

SPECIFIC CHARACTER

AND

SYNONYMS.

Pubescent : thorax greyish : abdomen brown : posterior thighs ciliated and transversely striate within.

APIS MELLIFICA : pubescens, thorace subgriseo, abdomine fusco, tibiis posterioribus ciliatis : intus transverse striatis.  
*Linn. Fn. Suec.* 1697.—*Fabr. Sp. Inf.* 1. p. 480. n. 37.—*Mant. Inf.* 1. p. 302. n. 42.

*Apis domestica* five vulgaris. . *Ray. Insect.* p. 240.

*Apis gregaria.* *Geoff. Inf. Par.* 2. p. 407. n. 1.

*Reaum. Inf.* 5. Tab. 21, 22, 23.

The Common Honey Bee is rarely found in a wild state in Britain: such as occur in this state of nature build nests in the hollows of decayed trees, which they inhabit in large societies, and are said to observe the same order and policy in the regulation of their community as when domesticated in the hive. The figures in the annexed plate are from examples discovered wild.

The two upper figures represent the male and female, that in the lower part of the plate is the figure of the neuter. The male or drone is distinguished by having the eyes remarkably large, and approximate behind, and also by the abdomen being robust, and somewhat obtuse; in the female, or queen bee, the eyes are small and remote, the wings smaller, and the abdomen remarkably large, elongated, and conic. The neuters are the working bees, and it is the office of those industrious creatures to collect the nectareous juices of flowers for making honey and wax, to feed and protect the young, and defend their society against every assailant.



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## P L A T E CCCCXCIII.

## FIG. I.

## PHALÆNA BERBERATA.

BARBERRY MOTH.

LEPIDOTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base : wings in general deflected when at rest. Fly by night.

\* GEOMETRA.

SPECIFIC CHARACTER

AND

SYNONYMS.

Anterior wings cinereous and subrufous, with three brown lineate bands, the posterior one inclosing a pale  $\epsilon$ .

PHALÆNA BERBERATA : feticornis alis anticis cinereis : fasciis tribus fascis : posteriori nigro undata. *Fabr. Mant. Inf. T. 2. p. 203. n. 154.*—*Ent. Syst. T. 3. p. 2. 182. 189.*

GEOMETRA BERBERATA. Der Gauerdorn Spanner. *Wiener Verz. p. 113. et No. 23.*

GEOMETRA BERBERATA Jungs Alphabet. *Berzeichn. 1. p. 75. —11. p. 370.*

PHALÆNA BERBERATA. Der Gauerdorn Spanner. *Kleem.*  
*Beytr. Naturf. Inf. Gesch. p. 32. n. 9.*

---

This pretty Moth is produced, according to Fabricius, from a scabrous larva of a brown colour, varied with rufous and white, and which, according to the continental writers in general, as well as Fabricius, is found on the common barberry, *berberis vulgaris*. The larva we have not seen, but, from a minute description and plate in the latter part of the Supplement of Kleeman's *Beytraege*, we are enabled to speak of it in more precise terms than Fabricius, and also to describe its pupa. The larva is of the looper kind, and rather thick in proportion to the length; of a brownish colour, with black dots, and two short black parallel lines at the posterior extremity, extending the length of the three or four last segments. The pupa is chestnut brown, rather inclining to an ovate form, and is inclosed in a spinning woven between two or three leaves, which are drawn nearly together for that purpose.

The species occurs in the winged state, as a native of Britain, in several cabinets, though we have never understood it to be common. We have named it the Barberry Moth, in allusion to the plant on which the larva usually feeds: among the English collectors, it bears two or more indefinite appellations.

## FIG II.

## PHALÆNA RUMIGERATA.

SCALLOPED-WING FOUR-DOT MOTH.

## SPECIFIC CHARACTER.

**PHALÆNA RUMIGERATA.** Wings deeply angulated, produced behind, and scalloped: pale testaceous, with two transverse dark lines on the anterior wings, and one on the posterior: a fuscous dot in the middle of each wing.

---

The elongated form of the wings, and depth of the remarkably produced posterior extremity of the lower pair, sufficiently distinguish this from the following species. The example, from which the above figure is taken, appertains to the collection of the late Mr. Drury.

## FIG. III.

## PHALÆNA QUADRIPUNCTATA.

QUADRIPUNCTATE MOTH.

*SPECIFIC CHARACTER.*

PHALÆNA QUADRIPUNCTATA. Wings subangulated: somewhat testaceous, with a common line near the base, dot in the middle, and common line behind.



From the same cabinet as the preceding.



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# P L A T E   C C C C X C I V .

## MUSCA HOTTENTOTTA.

DIPTERA.

GENERIC CHARACTER.

Mouth with a soft exerted fleshy proboscis, and two equal lips : suckers furnished with bristles : feelers two, very short, or sometimes none : antennæ generally short.

SPECIFIC CHARACTER

AND

SYNONYMS.

Body covered with yellow hairs : wings hyaline, with fuscous rib.

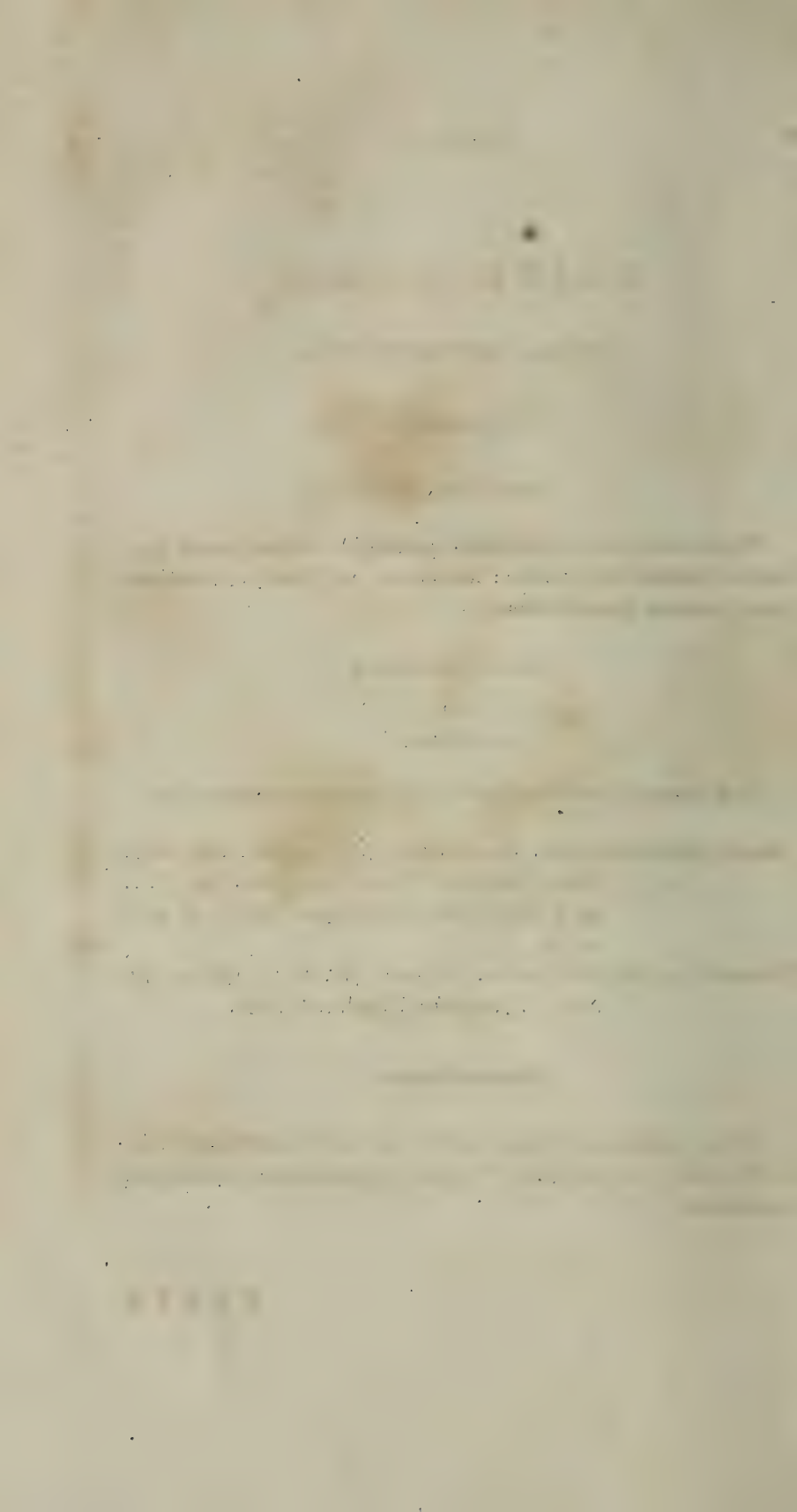
MUSCA HOTTENTOTTA : hirta flavescens, alis hyalinus : costa fusca.  
*Linn. Fn. Succ.* 1787.—*Gmel. Linn. Syst. T.* 1.  
*p.* 5. 2831. 13.—*Fabr. Spec. Inf.* 2. *p.* 415.  
*n.* 16.

NEMOTELUS HOTTENTOTTUS. *Degeer. Inf.* 6. *p.* 190. *n.* 12.  
*t.* 11. *f.* 7.—*Schæff. Icon. t.* 76. *f.* 6.

---

A large, curious, and elegant species, and one of considerable rarity in this country : in the north of Europe it appears to be very far from uncommon.

P L A T E



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PLATE CCCCXCV.

FIG. I. I.

VESPA ANGULATA.

ANGULATE WASP.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny, with a compressed jaw : feelers four, unequal and filiform : antennæ filiform, the first joint longer and cylindrical : eyes lunar : body glabrous : upper wings folded in each sex : sting pungent, concealed in the abdomen.

SPECIFIC CHARACTER.

VESPA ANGULATA. Head black : thorax black, with yellow anterior margin : abdomen yellow, with triangular black spot at the base, and broad black band in the middle.



This is one of the smallest species of the wasp genus : the head and thorax black, except the margin in the front of the latter, which is yellow : the body yellow, with a peculiar angulate or triangular black spot at the base, pointing downwards, and a band of the same in the middle. The antennæ and thighs are black, legs yellow.

This insect does not appear to have been before described. The smaller figure denotes the natural size.

FIG.

## FIG. II.

## VESPA QUADRATA.

QUADRATE WASP.

## SPECIFIC CHARACTER.

VESPA QUADRATA. Head and thorax black, the latter with yellow anterior margin: abdomen with a square spot of black at the base, and broad black band in the middle.

VESPA QUADRATA. *Panzer. Inf. Germ.*

---

Exceeds the former species in size, and differs in having a quadrangular instead of triangular black spot at the base of the abdomen, and the thorax marked in the middle with dots of yellow. This species is not uncommon.

It has not been conceived requisite to add an enlarged figure of this insect.

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## P L A T E   C C C C X C V I .

## D Y T I S C U S   1 2 - P U S T U L A T U S .

12-SPOT WATER-BEETLE.

C O L E O P T E R A .

G E N E R I C   C H A R A C T E R .

Antennæ fetaceous : palpi fix, and filiform : posterior legs formed for swimming : fringed on the inner side, and nearly unarmed with claws.

S P E C I F I C   C H A R A C T E R

A N D

S Y N O N Y M S .

Testaceous : wing-cafes black, with fix testaceous spots on each.

DYTISCUS 12-PUSTULATUS : testaceus, elytris nigris : maculis sex testaceis. *Fabr. Ent. Syst.* 1. a. p. 197. 50.  
*Paykul. Faun. Suec.* 1. 220. 29.  
*Oliv.* 3. 40. 31. 35. t. 5. f. 46. a. b.  
*Marsh. Ent. Brit.* 1. p. 422. 12.



Few of the Dytisci are distinguished for their beauty : their colours in general are either black, or blackish, variously glossed with blueish purple, or olive, or of a dull ferruginous ; and it is for this reason, more especially than any other, that the present species claims particular attention : it is certainly one of the prettiest insects of its tribe.

The size of this species is inconsiderable, which renders it necessary, in order to convey a correct idea of the subject, to represent it both in its natural size, and as it appears when magnified. The colour of the antennæ, legs, and thorax, are testaceous, the latter marked in the middle with a band of black; the wing-cases are black, with six testaceous spots of an irregular form, disposed in two longitudinal series on each. Like the rest of its tribe, *Dytiscus 12-Pustulatus* is of the aquatic kind.



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# PLATE CCCCXCVII.

## FORMICA RUFA.

RUFOUS ANT.

HYMENOPTERA.

### GENERIC CHARACTER.

Feelers four, unequal, with cylindrical articulations, placed at the tip of the lip, which is cylindrical, and nearly membranaceous: antennæ filiform: a small erect scale between the thorax and abdomen: females and neuters armed with a concealed sting: males and females furnished with wings, neuters wingless.

### SPECIFIC CHARACTER

AND

### SYNONYMS.

Black: thorax compressed, and with the legs ferruginous.

FORMICA RUFA: nigra, thorace compresso pedibusque ferrugineis.

*Fabr. Sp. Inf.* 1. p. 489. n. 6.—*Mant. Inf.* 1.

p. 308. n. 7.

FORMICA FUSCA? *Geoff. Inf.* p. 2. p. 428.

---

Except the *Formica herculanea*, to which the present species bears a striking resemblance both in appearance and magnitude, this is one of the largest species of the ant tribe found in Europe. Like the former,

former, it inhabits woods, and resides chiefly in hollow trees. The neuters, as in the rest of the genus, are wingless.

The figure in the upper part of the plate is magnified, the lower represents it in its natural size.

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# PLATE CCCCXCVIII.

## PAPILIO ÆGERIA.

SPECKLED WOOD BUTTERFLY.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ clavated at the tip : wings erect when at rest. Fly by day.

SPECIFIC CHARACTER

AND

SYNONYMS.

Wings indented, fuscous with yellow spots : anterior pair with an ocellar spot on each side : posterior ones ocellated above, beneath marked with four dots.

PAPILIO ÆGERIA : alis dentatis fuscis luteo maculatis : utrinque anterioribus ocello, posterioribus supra ocellis, subtus punctis quatuor. *Fabr. Spec. Inf.* 2. p. 73. n. 325.—*Mant. Inf.* 2. p. 37. n. 381.  
*Gmel. Linn. Syst. Nat. T.* 1. p. 5. n. 2295. 143.  
*Ray Inf.* p. 128. n. 5.  
*Schaff. Icon. t.* 75. f. 1. 2.  
*Hübner. Schmet. pl.* 40. 181. 2.

Very

Very common in the lanes leading through woody situations during the whole summer, two or three distinct broods being produced annually. The larva is green, with a white line, and spinous tail; the pupa greenish, and bulky in proportion to its length.

In the larva state it feeds on graminiferous plants, and is observed in this stage from March till the end of June. The first brood appears in the fly state in the month of April, the latest in Autumn.

*Papilio Ægeria* is not only one of the most abundant and generally diffused species of *Papiliones* in this country, but appears to be found in plenty throughout the rest of Europe.

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# PLATE CCCCXCIX.

FIG. I. I:

## PHALÆNA TRINOTATA.

TRINOTATED MOTH.

LEPIDOPTERA.

GENERIC CHARACTER.

Antennæ gradually tapering from the base to the tip : tongue spiral : wings generally deflected when at rest. Fly by night.

\* GEOMETRA:

SPECIFIC CHARACTER.

PHALÆNA TRINOTATA. Very pale testaceous : anterior wings with two whitish lobate spots in the middle, inclosed between two bands of scalloped lines : exterior margin with a series of triangular pale spots, each containing three black dots.



An extremely rare and probably unique insect of the Geometra family of Phalæna. It is a species of elegant and very pleasing aspect, though not in any degree remarkable for the gaiety of its colours.

The chain or series of pale triangular spots, which extends along the outer margin of the anterior wings, is altogether characteristic of  
this

this species, each of those spaces containing three distinct black dots; which also are disposed in the form of a triangle.

Our present species is of moderate size, as is expressed by the smaller figure: an enlarged view of the same is shewn in the upper part of the plate.

## FIG. II:

### PHALÆNA LITERATA.

#### LETTERED MOTH.

#### SPECIFIC CHARACTER.

PHALÆNA LITERATA. Anterior wings dark fuscous, with wavy lines, and a black lineole: band in the middle milky, with a black character resembling T

Larger than the preceding, and perhaps no less uncommon. Both are preserved in the cabinet of Mr. Drury.

A moth very nearly allied to the present occurs in the second part of the work of Sepp, (plate 5.): the general colour differs in being tinged with greenish, notwithstanding which it may be a variety of this species.



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# PLATE D.

## FORFICULA GIGANTEA.

GIGANTIC EARWIG.

COLEOPTERA.

GENERIC CHARACTER.

Antennæ setaceous : feelers unequal, filiform : wing-cases half as long as the abdomen : wings folded up under the wing-cases : tail armed with a forceps.

SPECIFIC CHARACTER

AND

SYNONYMS.

Pale : above variegated with black : tail bidentated : forceps extended, in the male armed with two teeth, in the female shorter, and ferrated within.

FORFICULA GIGANTEA : pallida supra nigro variegata ano bidentato : forcipe porrecta unidentata. *Fabr. Ent. Syst.*  
T. 2. 1. n. 2.



The largest of the European species of Forficula, if not of the whole genus, and which has not, till very recently, been discovered in this country : it is taken in some plenty at Christ Church, in Hampshire.

From the figures in the annexed plate, it will be observed, that the female is considerably larger than the other sex, and that the difference in the structure of their forceps is strikingly obvious. The female has been considered by some collectors as the *Erythrocephala* of Fabricius.

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# PLATE DI.

## FIG. I. I.

### DYTISCUS HERMANNI.

HERMANN'S WATER-BEETLE.

COLEOPTERA.

#### GENERIC CHARACTER.

Antennæ fetaceous: palpi fix, and filiform: posterior legs formed for swimming, fringed on the inner side, and nearly unarmed with claws.

#### SPECIFIC CHARACTER

AND

#### SYNONYMS.

Gibbous: head and thorax ferruginous: wing-cafes truncated, at the base ferruginous.

DYTISCUS HERMANNI: gibbus, capite thorace elytrorumque basi ferrugineis, elytris truncatis. *Fabr. Syst. Ent.* 232. 14.—*Sp. Inf.* 1. p. 295. 19.—*Mant.* 1. 191. 24.—*Gmel. Linn. Syst. Nat.* 1949. 41.—*Marsh. Ent. Brit. T.* 1. p. 418. 13.

Dytiscus Hermanni does not appear to be a very common insect in this country: it is of an amphibious nature, and resides chiefly in the water, like the other species of its tribe.

The smallest figure represents the natural size.

M 2

FIG.

## FIG. II. II.

## DYTISCUS MACULATUS.

SPOTTED WATER-BEETLE.

SPECIFIC CHARACTER

AND

SYNONYMS.

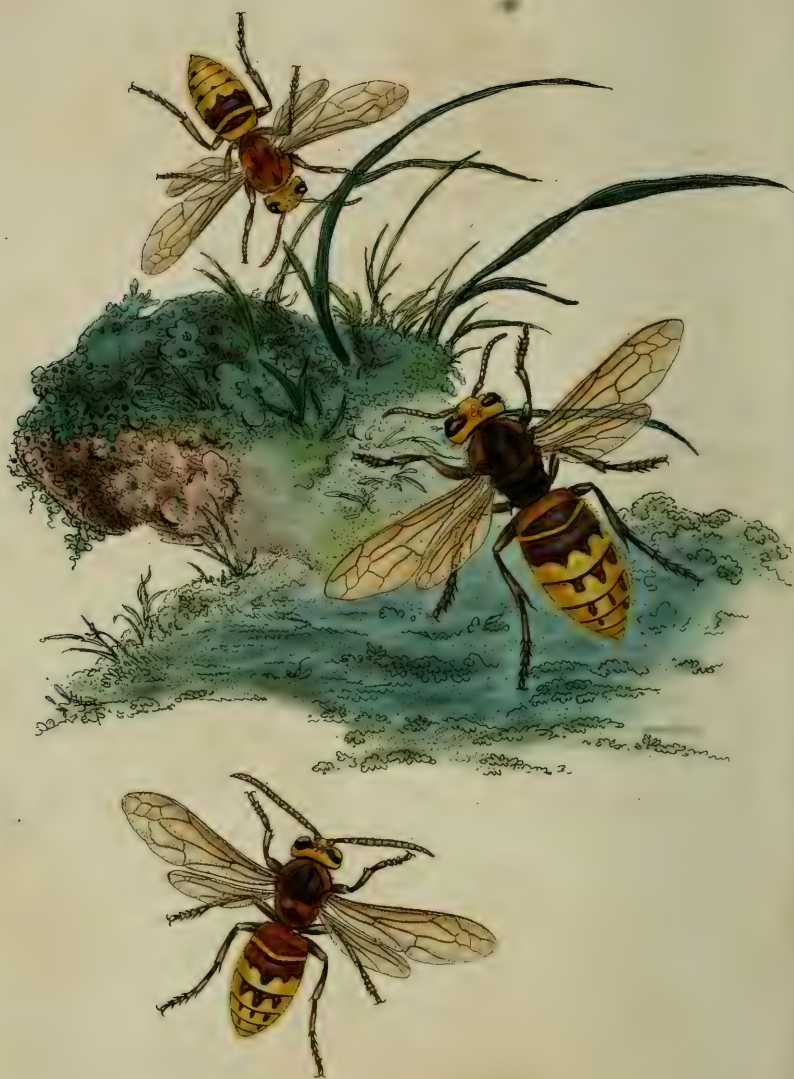
DYTISCUS MACULATUS. Testaceous or pale: thorax dusky, with a pale band: wing-cases varied with black spots, and lines.

DYTISCUS MACULATUS. *Fab. Spec. Inf.* 1. 295. 23?



A rare species, shewn both in its natural size and magnified. The varieties of this insect are very numerous, and dissimilar.

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# PLATE DII.

## VESPA CRABRO.

HORNET.

HYMENOPTERA.

GENERIC CHARACTER.

Mouth horny, with compressed jaw : feelers four, unequal, filiform : antennæ filiform, the first joint longer and cylindrical : eyes lunar : body glabrous : upper wings folded in each sex : sting pungent, concealed in the abdomen.

SPECIFIC CHARACTER

AND

SYNONYMS.

Thorax black : the anterior part rufous and immaculate : incisures of the abdomen with a double contiguous black dot.

VESPA CRABRO : thorace nigro : antice rufo immaculato : abdominis incisuris puncto nigro duplici contiguo. *Linn. Syst. Nat.* 2. 948. 3.—*Fn. Succ.* 1670.—*Fabr. Ent. Syst. T.* 2. p. 255.  
*Geoff. Inf.* 2. 368. 1.  
*Schæff. Icon.* 53. f. 5. tab. 136. fig. 3.  
*Reaum. Inf.* 4. tab. 10. fig. 9.  
*Mouffet. Inf.* 50.

The

The Hornet lives in societies, constructing its nest in the trunks of hollow trees, or among timber, wood-lofts, and other similar situations: the nest is capacious, being adapted for the reception of a numerous family, though smaller than that of the common wasp, and containing a less considerable number of cells: its texture resembles that of parchment, or strong paper.

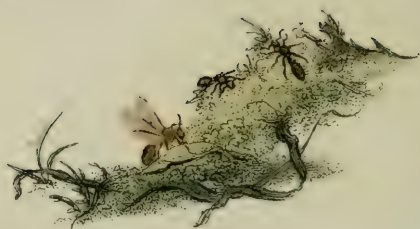
In its manners of life the Hornet resembles the wasp, being, like that insect, fierce, voracious, and subsisting on fresh animal substances, on fruits, and the nectar of flowers; and in particular committing vast havoc among the lower tribes of insects. Its animosity towards the bee is well known: it often enters the hive of these industrious creatures, and plunders them of their honey with impunity.

Both sexes of this species are shewn in the lower part of the plate, the specimens selected for which purpose rather exceed the usual magnitude. The figure in the upper part of the plate is the representation of a small variety of the same species.



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# PLATE DIII.

## FORMICA RUBRA.

RED ANT.

HYMENOPTERA.

GENERIC CHARACTER.

Feelers four, unequal, with cylindrical articulations, placed at the tip of the lip, which is cylindrical, and nearly membranaceous: antennæ filiform: a small erect scale between the thorax and abdomen: females and neuters armed with a concealed sting: males and females furnished with wings, neuters wingless.

SPECIFIC CHARACTER

AND

SYNONYMS.

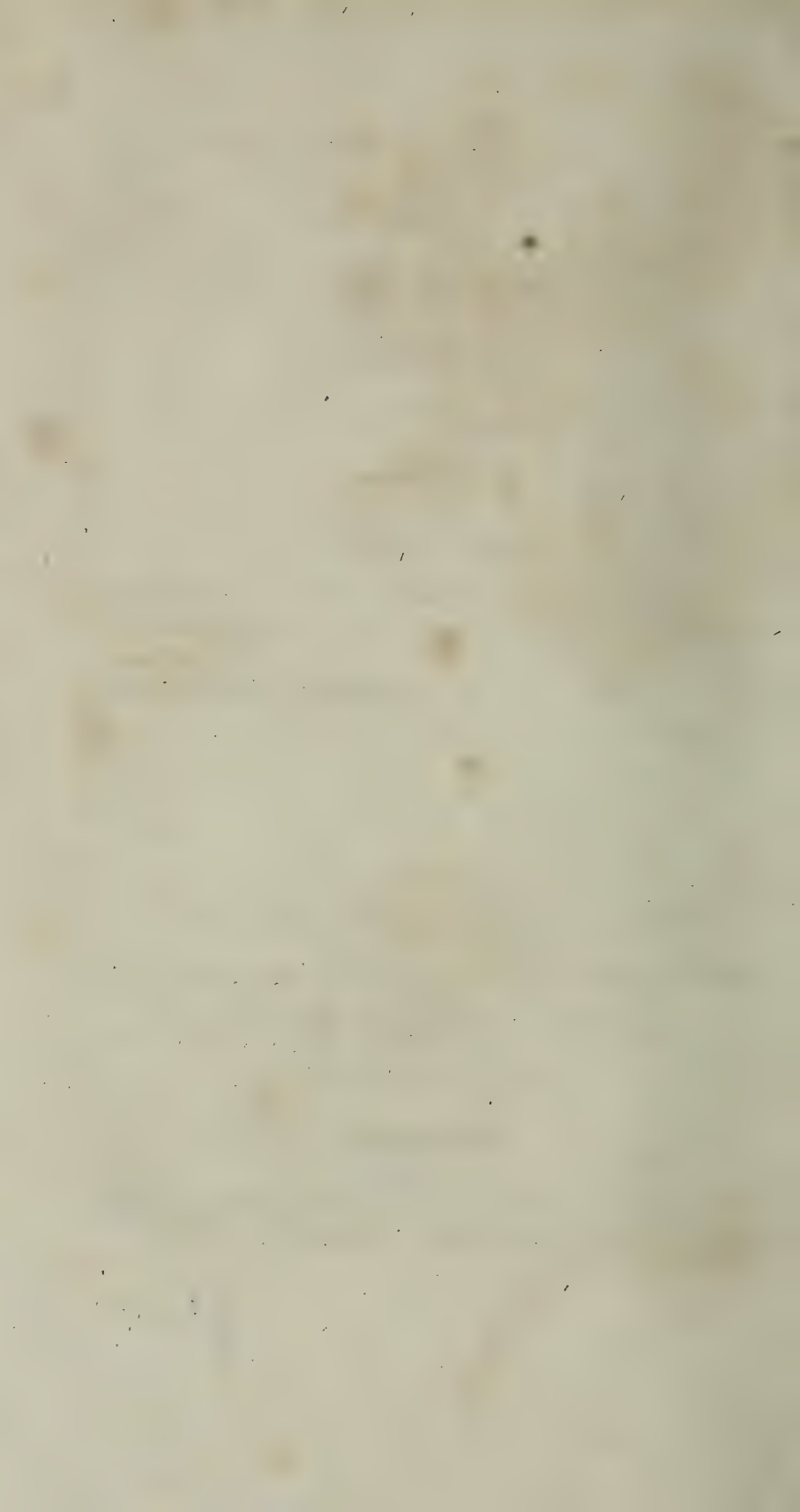
Testaceous: eyes and dot under the abdomen black.

FORMICA RUBRA: testacea, oculis punctoque sub abdomine nigris.  
*Linn. Fn. Suec. 2. n. 1725.—Fabr. Sp. Inf. 1.*  
*p. 490. n. 9.—Mant. Inf. 1. p. 308. n. 11.—*  
*Formica minima rufa, Ray.*

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Inhabits woods, and lives in nests under stones. During the winter they remain torpid, like most others of this genus.

PLATE



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# PLATE DIV.

## FIG. I.

### CARABUS INQUISITOR.

#### COLEOPTERA.

#### GENERIC CHARACTER.

Antennæ filiform : feelers generally six, the last joint obtuse and truncated : thorax flat, and margined : wing-cases marginate.

#### SPECIFIC CHARACTER

AND

#### SYNONYMS.

Wing-cases striated, brassy-green, with three rows of dots.

CARABUS INQUISITOR : elytris striatis viridi-aneis : punctis triplici ordine. *Linn. Syst. Nat.* 669. 11.—*En. Suec.* 789.—*Gmel. Syst. Nat.* 1965. 11.  
*Fabr. Syst. Ent.* 239. 18.—*Spec. Inf.* 1. 303. 23.  
*Mant.* 1. 197. 31.  
*Paykull. Monogr.* 39.—*En. Suec.* 1. 127. 40.  
*Panzer. Ent. Germ.* 54. 50.  
*Marsh. Ent. Brit. T.* 1. p. 448.

Le Bupreste quarré couleur de bronze antique. *Geoff.* 1. 145. 6.  
*Buprestis Sycophanta minor.* *Panz. Foet.* 2. 86. 39. t. 38. f. 39.

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A rare species in Britain : it has been taken in Norfolk.

## FIG. II.

## CARABUS ROSTRATUS.

SNOUTED CARABUS.

SPECIFIC CHARACTER

AND

SYNONYMS.

Apterous : wing-cases smooth and black : thorax narrow : head very slender.

CARABUS ROSTRATUS : apterus, elytris læviusculis nigris thorace angustiori, capite angustissimo. *Fabr. Syst. Ent.* 240. 21.—*Spec. Inf.* 1. 304. 26.—*Mant.* 1. 198. 36.—*Ent. Syst.* 1. a. 131. 31.  
*Paykull. Monog.* 26. 14.  
*Marsh. Ent. Brit. T.* 1. p. 470.

TENEBRIO ROSTRATUS. *Linn. Syst. Nat.* 677. 20.—*Fn. Succ.* 823.

CYCHRYS ROSTRATUS. *Payk. Fn. Succ.*

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Taken by G. Milne, Esq. F. L. S. The species has been found in Scotland and Devonshire, and though generally esteemed rare, was lately met with in considerable plenty on mountains in Ireland by Mr. W. Leach, F. L. S.

LINNÆAN



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Bembex

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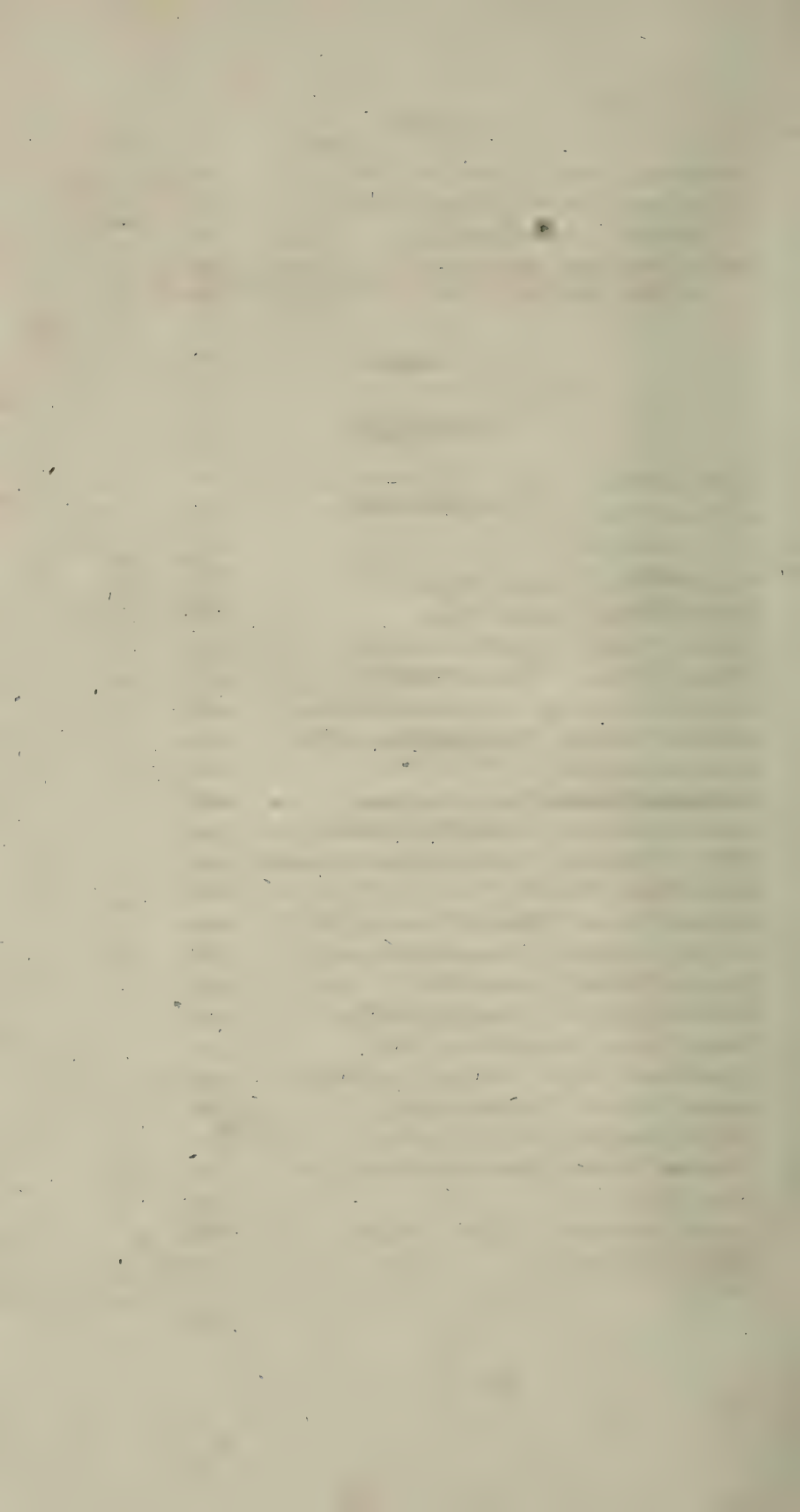
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